WEST EUROPEAN COMPUTER SERVICES MARKETS

VOLUME 3

USER ATTITUDES AND VENDOR GROWTH OPTIONS

INPUT EUROPE

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SECTION VI. USER ATTITUDES AFFECTING PRODUCT GROWTH AND DEVELOPMENTS

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VI. USER ATTITUDES AND REQUIREMENTS AFFECTING PRODUCT GROWTH AND DEVELOPMENT

- Recent surveys by INPUT in the major European country markets indicate that an evolution towards de-centralised computing is well into its initial phase. Conversely, the growth prospects for traditional bureau services (i.e. Batch, Remote Batch, Interactive) are changing with respect to recent industry forecasts of all-round good growth. Demand for Batch services by large organisations is now going into decline and in some countries the growth rates now forecast for Remote Batch and Interactive are falling back from previous forecasts.

- The impact of mini computers is clearly beginning to influence the users' approach to the structure and source of their computer services. De-centralisation is a trend which has been made possible by mini computers; the aspect of de-centralisation which is not yet established in the minds of users is what options are available and what form each will take. Two broad approaches being initiated currently are:

  - Distributed Data Processing (DDP)
  - On Site Computing (OSC)/User Site Hardware Services (USHS)

- Growth rates for DDP in the major European countries range from 25% to 40% annually over the next 2 years. The corresponding growth rate for centralised computing is 15% to 20%; it is probably fair to assume that some centralised growth is to support increasing distributed systems.

- For 10 mainframes or other centralised hardware configurations there are currently between 1 and 5 (depending on the country) distributed or dedicated computers.

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SELECTED USER SITE HARDWARE OFFERINGS BY RCS VENDORS

VENDOR	PRODUCT	HARDWARE	BUNDLED WITH SERVICE	PRICE RANGE	LEASE OR PURCHASE	NUMBER OF PORTS	SIZE OF MEMORY	SIZE OF DISK STORAGE
ADP Network Services	"Onsite"	DEC 2020	YES	$5-15,000 Per Month	Lease Only	8-32	1-2+ MB	45-300+ MB
NCSS	"3200"	TWO PI 3200	NO	$185,000 to $800,000	Purchase Only	1-32	0.25- MB	200-2000 MB
ITEL *	Small Business Standalone	DG CS Series	YES	$15,000 to $100,000+	Lease and Purchase	As appropriate to the application		
KEYDATA *	"Unity„ Small Business Standalone	DG NOVA 3/D	YES	$48,000 to $100,000+	Purchase and Monthly Soft-ware Fee	As appropriate to the application		
GE	"MARKLINK"	TI MINI	YES	$21,230 to $93,290 or $800 to $3,690 Per Month	Lease and Purchase	1-16	24-352	10-20
STSC	"QUAD 100"	Not yet Selected	NO	$500,000 to $1,000,000	Purchase Only	5-16	1+ MB	Un-announced
Tymshare, Compuserve, Rapidata	Not Formally Announced	DEC 2020	Unknown, but presumed similar in price and capability to ADP's "Onsite"					

* ARE NOT INTEGRATED WITH A NETWORK AND THEREFORE ARE NOT CONSIDERED USHS AND ARE NOT INCLUDED IN THE FORECASTS OF USHS DEVELOPED IN THIS STUDY: THEY ARE SHOWN ON THIS CHART FOR COMPARISON ONLY

EXHIBIT VI-1

- Between 20% and 18% of users who currently use conventional external services envisage the use of OSC.

- DDP and OSC are only two forms of de-centralisation currently available. Other modes of supply may be possible and there are no doubt many more variations possible on the two existing themes.

- DDP and OSC can be seen as alternative modes of supply for the same user facility. Neither is permanently labelled 'in-house' or 'external service' territory. Essentially there is a unique opportunity to change the balance of internal and external computer services.

- The vendor offerings in the OSC category are relatively limited currently. Exhibit VI-1 summarises the services currently offered or planned to be offered by nine vendors; all are US owned vendors of which only six are marketing OSC actively in the USA and only one (ADP) in Europe.

- In Europe OSC services and products are more likely to develop from tailor-made remote systems which originate from either enhanced RJE systems or turnkey systems. Standard products will evolve subsequently. European vendors such as UCSL, Scicon, GSI, CISI, SLIGOS, CEA etc., are developing their OSC services along these lines.

- Significant revenues from OSC will not be generated in the European market by either the US or indigenous vendors. Exhibit VI-2 summarises the revenue percentage projections by US vendors in the US market. In the European market the build up is likely to be at a similar pace. (Specific research on this subject has been completed by INPUT in the USA but not so far in Europe).

- Services companies are becoming increasingly hardware orientated; the best example of this trend is the turnkey system which usually involves the systems or software house to be a supplier and installer of hardware.

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VENDOR PROJECTIONS OF THE PERCENTAGE OF RCS REVENUES CONTRIBUTED BY USHS

VENDOR	PERCENT OF RCS REVENUES DERIVED FROM USHS			
	1978	1979	1980	1983
1	0%	5%	7.5%	10.0%
2	0	0	0	15 - 20.0
3	0	0	5.0	20.0
4	MINIMAL	10	20.0	25.0
5	MINIMAL	3	5.0	15 - 20.0
6	0	2	5.0	20.0
AVERAGE	1%	4%	7.0%	18.3%

EXHIBIT VI-2

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- A further factor in the increasing hardware orientation of services companies is the increasing dependence of hardware manufacturers on these companies for production of application software to meet users' needs. DEC does more than 75% of its business in the UK through its OEM and referred agreements with service companies.

- IBM pursued a large number of major software houses after the announcement of S/1 to examine the prospects for co-operation. At the time the lack of discount was a discouraging factor which has since been relieved. Meanwhile several systems/software houses in the UK (e.g. Scicon, Logica and CAP) have installed S/1 machines in their offices for development work.

- Now that the IBM 4300 has been announced there will be further increased vendor and user presssure in service companies to include the new range in their services. The types of products and services, some including hardware supply to the end user, which will be needed are:

  - USER PLANNING/SUPPORT CONSULTANCY
  - TUTORIAL/WORKSHOP CENTRES
  - APPLICATION SOFTWARE PRODUCTS/SERVICES
  - FACILITIES MANAGEMENT
  - 370 OFF LOAD TO REMOTE USER SITES
  - ON SITE CLUSTER SYSTEMS
  - LARGE SCALE TURNKEY
  - SYSTEMS SOFTWARE
  - CONVERSION OF PROGRAMS AND FILES
  - JOINT TURNKEY SALES WITH IBM

- The focal point of competition within the services industry is the rivalry between turnkey systems and the closest external computing service to meet the user requirement. Service bureaux have long feared the impact of the mini computer and the answers which are emerging to meet this threat are mostly based on an alternative form of supply of mini system. On Site Computing is a straightforward example and there is noticeable activity currently by RCS vendors in the acquisition of software houses (e.g. BOC/Software Services).

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A. UNITED KINGDOM

- The U.K. is among the higher frequency users of external services in Western Europe - excepting that is the extreme usage figures found in Sweden and Norway. The U.K. is on a par with France and Holland; the figures are as follows:

France	41%
U.K.	43%
Holland	44%
Sweden/Norway	72%

- In all Western European countries surveyed, a counterbalancing relationship between in-house and external services usage was observed. In-house usage in the U.K. is 73% of all organisations in the sample. The relative figures are:

	IN HOUSE	EXTERNAL
Sweden/Norway	70%	72%
U.K.	73%	43%
Holland	76%	44%
France	79%	41%
Belgium/Lux.	82%	33%
Germany	90%	25%

- 16% of organisation in the sample use both in-house and external computer services. This compares with overlap figures of 20% in Holland and 42% in Sweden/Norway. Users in the U.K. are less ambivalent than their counterparts elsewhere in Europe.

- Usage of each category of computing service varies considerably as follows:

Batch	20%
Remote Batch	8%
Interactive	16%

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(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

Batch Services

- Batch Services continue to be a popular service in the industrial group of companies examined (Times Top 1000). This is not true of the financial companies included in the survey.

- The stability of the user base is questionnable in some key sectors of the market (British Banks Overseas, Foreign Banks, Insurance companies, Clearing Banks, Building Societies, Finance Houses, Discount Houses) but also in the lower half of the Times Top 1000. In this last category the percentage of respondants expecting a decline in expenditure is high (14%). In terms of a quantified rate of decline users in large organisations anticipate a - 4% decline (see Exhibit VI-A.1).

- This a key sector for the Batch companies since the larger companies will increasingly switch to other sources of computing services or be the target of competitive services/products. Growth in this area cannot come from the non-users.

- Batch companies will realise the market growth potential forecast (see Exhibit VI-A.2) by concentrating on small and medium sized organisations. In this market arena there is however a strong conflict between in-house minis and traditional Batch Services.

- The Batch Services market is gradually losing its clients to in-house computers (frequently turnkey minicomputers) but has not lost a great deal to Remote Batch Services as yet.

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

U.K.

SERVICE	EXPENDITURE RANGE (£ Sterling)					OVERALL
	1K	1K - 5K	5K - 12K	12K - 25K	25K	
Batch	+ 12%	+ 3%	- 10%	- 16%	+ 2%	- 4.0%
Rem. Batch	+ 2%	+ 33%	+ 7%	+ 3%	+ 1%	+ 4.0%
Interactive	+ 15%	+ 21%	+ 4%	+ 10%	+ 6%	+ 12.3%
On Site	N/A	N/A	N/A	N/A	N/A	

Note: The percentages under specific expenditure ranges are simple averages of respondant estimates; the "Overall" figures are weighted averages according to expenditure range.

EXHIBIT VI-A.1

- A total of 113 responses out of 611 concern Batch Vendors who are not part of the 10 major vendors listed. The Batch Services market is fragmented into many small territories (vendor combinations of type of service offered and geographic coverage of their companies). Without an external source of investment these vendors cannot grow substantially. Their territories are limited, as are their abilities to fund new product development and marketing force expansion.

Remote Batch Services

- In the markets examined by the survey, the penetration of Remote Batch Services was small indeed. Only 86 single-and multiple-source users were found.

- The massive support of Centrefile by the Building Society group distorts the picture from a vendor market share standpoint, and it would be erroneous to extrapolate this data to other, wider markets.

- Users of Remote Batch Services have less of a tendency towards a decline of usage than Interactive and Batch users and a higher percentage of stable users. Large organisations will show a + 4% increase in demand for Remote Batch Services over the next 12 months. (See Exhibit VI-A.1). Better growth will be found in medium-sized companies which have large enough data volumes to justify a Remote Batch Service but insufficient justification for heavy enough internal computer processing capability; this will apply to a lower extent to demand in the small companies sector. (See Exhibit VI-A.2).

- Individual expenditure trends show a remarkably heterogeneous picture:

  - the Accepting Houses, Mining and other Finance group evidences a lack of interest in Remote Batch services.

  - similarly, the Insurance sector is an RB market in a state of flux with an equal number of users with a tendency towards growth as there is with a tendency towards a decline in usage.

  - all other sectors are growth markets, the best of which is the Times Top 50. The Times 51-200 is also a good growth market.

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

U.K.

SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
Large	- 4%	+ 4%	+ 12%	N/A
Medium *	+ 10%	+ 13%	+ 25%	N/A
Small *	+ 20%	+ 7%	+ 15%	N/A
OVERALL *	+ 17%	+ 9%	+ 25%	N/A

Notes:

* These figures are provisional INPUT estimates, as yet unsupported by statistically significant field research.

\+ Source: "Computer Services Markets in Europe", INPUT, September 1978.

o Entirely new user growths not quantified by organisation size but included in the overall figures.

EXHIBIT VI-A.2

- The significance of the last point lies in the fact that the Remote Batch services growth sectors are, (with the exception of the Clearing Bank/Building Society/Finance and Discount Houses - very much the province of Centrefile at present), located in those markets where Interactive Services are strong and Batch Sevices vendors are weak.

- Thus, it is more likely that the Remote Batch market will be serviced by Interactive vendors than by Batch vendors extending their coverage to a larger client base than at present.

- None of the major services vendors (IBM, UCC, GEISCO, COMSHARE) have established themselves strongly in the company groups examined. The market is therefore very much open to a determined thrust by vendors convinced of the inevitability of distributed processing and who can successfully package local hardware with remote processing applications know-how provided through a network.

Interactive Timesharing Services

- The contrast in usage of Interactive Services with usage of Batch and RB services is striking; it is the most heavily used external service. The distribution of the expenditure is also clearly established between the major vendors.

- The market for Interactive Timesharing services in the company groups examined shows strong growth in the Times Top 500. Growth is also good in the Times 501-1000, British Banks Overseas and Foreign Banks. In all markets, with the exception of the Times Top 500, the user base is in a state of flux with a substantial proportion planning to decrease their usage of Interactive Services.

- This "de-emphasis" on Interactive Services is most apparent in the Insurance and Accounting/Management Consultancy sectors where planned declines reached 31% and 38% respectively of respondants.

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- The Interactive Services growth in the U.K. has reached 29% per annum, which cannot be sustained by the increased usage of Interactive Services by current users, (who alone account for nearly half of this growth). Thus, new users must be sought by the major vendors to keep pace with (or exceed) the rate of market growth so as to sustain or increase current market shares.

- The large user organisation sampled expect a + 12% growth in their future requirements for Interactive Services. (See Exhibit VI-A.1). (Note that growth from new users is not included in this figure).

- Highest growth will continue to be found in large organisations with growth at the overall market level; only modest growth is likely to be achieved with small organisations. (See Exhibit VI-A.2). The trends for organisations of medium and small size have been estimated by INPUT from sources outside the main survey and are presented as a framework for relating different size sectors to the overall market forecast.

- The U.K. part of the survey did not (unlike all other countries covered) collect data relating to the trends in in-house distibuted or external On Site services. INPUT has no reason to believe that the trends observed elsewhere in Europe towards one of these two approaches do not apply in the U.K. The question which remains is whether users in the U.K. will opt for the in-house or the external vendor offering.

(ii) APPLICATION AREAS - USAGE AND TRENDS

- In the Industrial group there is a heavy but stagnating market for general accounting and payroll services, with only two thirds of the present users planning to make greater use of applications in this area.

- Users of Marketing/Sales Analysis and Production/Inventory applications show sustained interest in expanding their usage, but only two-thirds of the population use them at present.

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- Personnel Management and Financial Analysis/Planning applications are (a) used by around half of the population and (b) expected to be used more widely in the future.

- Engineering and Scientific applications have the smallest user base of all whose planned usage is expected to grow. This area of the market has yet to be fully exploited.

- In the Financial Company group there was a lack of indentification with the applications proposed, with most respondents using specialized applications. The applications demand was weak in all areas, as was the planned future usage of these same areas.

B. FRANCE

- From a total sample of 783 companies interviewed, only 41% were users of computer services of one category or another. The vast majority of these (75%) are Batch Services users, and relatively few use Remote Computing Services. (See Exhibit VI-B.1 for present situation, by industry).

- A total of 39 RB users were found out of the total computer services user sample of 318, an order of magnitude smaller than the Batch Services sample. Two sectors out of the fourteen accounted for 46% of the user base: Petrochemical/Coal/Rubber/Plastics and Metal Industries/Mechanical/Engineering.

- Above and beyond these two sectors, the proportion of Remote Batch Services usage to computer services usage in other service categories is low. French Banks and Credit Banks, while a small market, show significant user growth potential. This is in contrast to the Foreign Banks where no usage was found.

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SUMMARY OF HIGHLIGHTS BY INDUSTRY

FRANCE

ISIC	INDUSTRY	RESP %'GE	EXTERNAL SERVICES USAGE				IN HOUSE
			ALL	B	RB	I	
11-13	Agriculture/Fishing	-	-	-	-	-	-
21-29	Mining/Quarrying	33%	50%	50%	-	-	50%
31	Food/Drink/Tobacco	62%	21%	14%	2%	7%	90%
32	Textiles/Clothing	48%	21%	14%	14%	7%	94%
33	Wood Products	100%	13%	-	-	13%	100%
34	Paper/Print/Publ.	66%	33%	29%	5%	5%	86%
35	Chem./Petrol/Coal	67%	34%	25%	12%	9%	93%
36	Non-Metallic Prod.	66%	32%	21%	5%	5%	90%
37	Basic Metal	67%	31%	25%	6%	13%	84%
38-39	Fabricated Metal Prod.	61%	36%	24%	7%	11%	91%
41	Electricity/Gas	-	-	-	-	-	-
50	Construction	56%	22%	19%	7%	7%	89%
61-63	Wholesale/Retail	64%	28%	16%	3%	7%	84%
71-72	Transport/Comm.	63%	37%	32%	*	*	74%
81	Financial/Banks	45%	60%	56%	5%	8%	58%
81	Foreign Banks	76%	63%	49%	2%	12%	79%
82	Insurance	-	-	-	-	-	-
83	Business Services	34%	67%	66%	2%	3%	23%
91	Government	55%	50%	33%	11%	22%	75%
OVERALL WEIGHTED AVERAGE		57%	41%	30%	5%	9%	79%

EXHIBIT VI-B.1

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- Interactive Services users represent 20% of the computer services users interviewed and show the highest growth trend of all three services categories. Of the Interactive population, 57% expect growth in their expenditures, and only 17% a drop in usage.

- It should be noted that some reluctance was found on the part of French users to disclose information on the subject of Remote Computing Services usage. Thus usage figures for Remote Batch and more particularly Interactive Services are likely to be understated.

- Some industry sectors are very frequent users of Batch Services and exceed the average by around a factor of 2. These are Real Estate/Business Services, Foreign Banks, French Banks and Mining/Quarrying.

- The much above average Remote Batch users are to be found in Clothing/Textiles, Chemicals/Petroleum and Public Administration; the latter industry sector is also well above average in its usage of Interactive Services.

- In European terms France is mid way on the counter balancing scale of in-house and external services usage. Some sectors are well above the national average.

HIGH EXTERNAL SERVICES	HIGH IN HOUSE USAGE
Foreign/French Banks	Wood products
Real Estate/Business Services	Textiles/Clothing
Public Administration	Chemicals/Petroleum
Mining/Quarrying	Fabricated Metal Manufacturing

- Overall, the ratio of distributed to centralised hardware installations is relatively high in France. Industries which are notably advanced in this sign of early commitment to a DDP approach are:

  Wood Products
  Paper/Printing/Publ.
  Man. Metallic Products
  Basic Metal

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(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

- Batch Services users show a marked tendency towards stabilisation with 52% of the current user base expecting no growth in their usage and 24% a decline. On the other hand, both Remote Computing Services markets show good growth demand from current users.

- In overall percentage terms demand for Batch Services will decline in large organisations at -12% annually (see Exhibit VI-B.2) over the next 12 months. The industry sectors chiefly responsible for this trend are the Paper/Printing/-Publishing and Chemical/Petroleum/Coal/Rubber sectors.

- Community Services and Administration is the only strong sector for Batch Services in the Top 1500 companies.

- The Remote Batch Services market in France is obviously far from being substantially developed and at present does not warrant a great deal of attention. Some notable Batch Services market suppliers have made an attempt to transfer their Batch revenues to a Remote Computing network, but have not succeeded in achieving anything more than remote data capture.

- Remote Batch Services users generally expect growth; however, they represent only 13% of the 318 users interviewed. Within this small RB population, 58% expect growth, and 11% a decline in usage equivalent to a growth in large organisation demand of +13%.

- The Remote Batch Services market grew by 8% in 1977. It should not be difficult to increase this to 13% over the next 12 months. The implementation of on-site hardware in the form of minicomputers used as nodes of the network should enhance this from 1979 onwards.

- Out of the total of 318 users found using Computer Services, 64 were users of timesharing services. Of these, the vast majority expect to see good growth in their present usage although those who quantified this view could only put a +10% figure on this trend.

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

FRANCE

SERVICE	EXPENDITURE RANGE (F. Francs)						OVERALL
	10K	10K - 50K	50K - 200K	200K - 500K	500K - 1M	1M	
Batch	+ 1%	- 17%	- 11%	- 18%	- 12%	- 11%	- 12.3%
Rem. Batch	+ 10%	-	+ 16%	- 5%	+ 13%	+ 14%	+ 12.6%
Interactive	+ 5%	-	- 18%	- 20%	+ 33%	+ 8%	+ 10.1%
On Site	0%	-	-	+ 50%	+ 20%	- 4%	+ 18.3%

Note: The percentages under specific expenditure ranges are simple averages of respondant estimates; the "Overall" figures are weighted averages according to expenditure range.

EXHIBIT VI-B.2

- Very few of those presently using Interactive Services expect a decline in usage or even a stable usage. As with Remote Batch Services, however, the greatest source of growth in Interactive Services has to be the non-user.

- Excluding the extremes in the sample (100% growth from a user in Wood Products and zero growth from two users in the Construction sector), the top four sectors for T/S are:

  - Petro Chemical/Coal/Rubber, etc.
  - Food/Drink/Tobacco
  - Basic Metal Industries
  - Metal Products/Mechanical/Engineering

- In addition the Community Services/Administration group shows a high level of usage, although with mixed intentions from the current users.

- Growth rates do of course vary according to size of organisation. Exhibit VI-B.3 provides a framework for relating the growth/decline rates for different organisation sizes to the overall market forecast.

- Overall, there is no pattern of concentration of computer services expenditures in any one of the annual expenditure bands; users are spread evenly throughout all bands in each of the service categories.

(ii) APPLICATION AREAS - USAGE AND TRENDS

- The two main groups of (i) industrial companies, and (ii) financial organisations were examined for their present and future usage of their main applications, and the type of processing internal computer, external services and combined (minicomputer as internal computer and used as a node to a services network).

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

FRANCE

SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
Large	- 12%	+ 13%	+ 10%	+ 18%
Medium *	+ 5%	+ 10%	+ 8%	N/A
Small *	+ 15%	+ 3%	+ 5%	N/A
OVERALL +	+ 20%	+ 6%	+ 24%	N/A

Notes:

* These figures are provisional INPUT estimates, as yet unsupported by statistically significant field research.

\+ Source: "Computer Services Markets in Europe", INPUT, September 1978.

o Entirely new user growths not quantified by organisation size but included in the overall figures.

EXHIBIT VI-B.3

- In the industrial group, there is a strong market for General Accounting/Payroll on internal computers and, relatively speaking, on outside services also. Marketing/Sales is a rapidly expanding market, rising to the level of Production/Inventory, and Personnel processing, both of which are second level applications with 60+% usage each.

- Relatively, the use of in-house minicomputers for external service data transmission/connection is growing with an across-the-board interest for such "combination" services in all application areas. Stated in other terms the use of "combination" services is attractive, independent of the type of application in use.

- In the financial companies, the contrast of external services-based applications is striking, in comparison with the industrial group. General Accounting/Payroll is a popular application for outside services (three times stronger than all the others). It is also the strongest growth area by a factor of almost two to one.

- There are very few areas of decline in either industrial or financial companies, but a growing proportion of stagnation in usage of Personnel and General Accounting/Payroll.

C. WEST GERMANY

- The frequency of external service users (25%) in Germany is the lowest of all countries in the survey series; by direct contrast the usage of in-house installations (90%) is the highest of all countries. IBM dominates both the supply of external services and the supply of in-house hardware.

- Since all organisations in the sample use some form of computer service it is possible to declare that 15% of them use both in-house and external services. In most other countries the comparative figures are very similar i.e. Belgium/-Luxembourg 15%, UK 16% and France 20%. (See Exhibit VI-C.1 for present situation, by industry).

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SUMMARY OF HIGHLIGHTS BY INDUSTRY

GERMANY

ISIC	INDUSTRY	RESP %'GE	EXTERNAL SERVICES USAGE				IN HOUSE
			ALL	B	RB	I	
11-13	Agriculture/Fishing	33%	0%	0%	0%	0%	100
21-29	Mining/Quarrying	43%	0%	0%	0%	0%	100
31	Food/Drink/Tobacco	42%	34%	24%	3%	17%	90
32	Textiles/Clothing	42%	12%	7%	-	4%	100
33	Wood Products	47%	14%	14%	-	-	100
34	Paper/Print/Publ.	42%	40%	10%	-	30%	90
35	Chem./Petrol/Coal	41%	19%	6%	2%	10%	98
36	Non-Metallic Prod.	35%	25%	13%	-	13%	87
37	Basic Metal	33%	15%	5%	-	-	85
38-39	Fabricated Metal Prod.	31%	22%	8%	9%	7%	95
41	Electricity/Gas	47%	12%	12%	6%	-	94
50	Construction	32%	47%	33%	7%	13%	80
61-63	Wholesale/Retail	43%	19%	7%	4%	7%	100
71-72	Transport/Comm.	44%	14%	7%	7%	7%	100
81	Financial/Banks	35%	54%	54%	23%	23%	77
81	Foreign Banks	-	-	-	-	-	-
82	Insurance	41%	29%	-	-	29%	100
83	Business Services	56%	44%	35%	9%	18%	90
91	Government	-	-	-	-	-	-
OVERALL WEIGHTED AVERAGE		38	25	13	6	11	90

EXHIBIT VI-C.1

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- Of the organisations which use external services in Germany 52% use Batch services, 24% Remote Batch and 44% Interactive. Compared with other countries, Germany is a relatively low Batch user and a relatively high Remote Computer Services user.

- The largest usage of external services is to be found in the following industries:

  - Financial Institutions/Banking (54%)
  - Construction (47%)
  - Business Services (44%)
  - Paper/Printing/Publishing (40%)

- The largest usage of Interactive Services is to be found in the following industries:

  - Paper/Printing/Publishing (30%)
  - Insurance (29%)
  - Financial Institutions/Banking (23%)
  - Business Services (18%)
  - Food/Drink/Tobacco (17%)

- The Insurance industry appears to use only Interactive Services.

(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

- The prospects for conventional external services are relatively poor compared with the prospects for the in-house and external service interpretations of de-centralised computing.

- BATCH SERVICES will overall tend to stagnate although there are distinct differences in the trends at either end of the expenditure range. (See Exhibit VI-C.2).

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

GERMANY

SERVICE	EXPENDITURE RANGE (DM)						OVERALL
	50K	50K - 250K	250K - 500K	500K - 1M	1M - 1.5M	1.5M	
Batch	- 2%	- 17%	- 28%	+ 10%	+ 7%	+ 10%	+ 3.6%
Rem. Batch	- 21%	- 36%	+ 17%	- 8%	0%	0%	- 0.1%
Interactive	- 5%	0%	+ 97%	+ 4%	0%	+ 11%	+ 12.1%
On Site	+ 19%	0%	0%	+ 15%	0%	0%	+ 10.2%

Note: The percentages under specific expenditure ranges are simple averages of respondant estimates; the "Overall" figures are weighted averages according to expenditure range.

EXHIBIT VI-C.2

- REMOTE BATCH SERVICES is a less attractive large organisation market than Batch Services. The least negative area to target is the medium to large end of the expenditure range.

- On the basis of individual growth rate, INTERACTIVE is probably the only service which can continue to stand alone with good growth (12%) and relatively little erosion, since it is already a de-centralised computer service (i.e. controlled by the user not the data processing department). The best prospects for future growth will be found in the next 12 months in:

  - Food/Drink*
  - Paper/Printing
  - Chemicals/Petroleum
  - Fabricated Metal*
  - Business Services

- The industries asterisked (*) in the above list are also those which offer the best growth prospects for On Site services which will grow at 10% per annum. (The Non-Metallic products industry is also a good growth prospect). A two-pronged marketing drive for both interactive and combination services as complementary services in these industries would give the best return for marketing investment.

- In no other country is the Interactive user proportion so close to the proportion of Batch (the largest in all cases).

- The best Interactive service growth prospects by industry are in the following sequence:

  - Business Services
  - Food/Drink/Tobacco
  - Textiles/Clothing/Leather
  - Fabricated Metal/Machinery
  - Paper/Printing/Publishing
  - Chemicals/Petroleum

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

GERMANY

SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
Large	+ 4%	0%	+ 12%	+ 10%
Medium *	+ 15%	+ 20%	+ 18%	N/A
Small *	+ 20%	+ 15%	+ 10%	N/A
OVERALL +	+ 18%	+ 14%	+ 15%	N/A

Notes:

* These figures are provisional INPUT estimates, as yet unsupported by statistically significant field research.

\+ Source: "Computer Services Markets in Europe", INPUT, September 1978.

o Entirely new user growths not quantified by organisation size but included in the overall figures.

EXHIBIT VI-C.3

- All percentages referred to so far refer to the trends in large organisations. Exhibit VI-C.3 provides a framework for relating the growth/decline rates for different organisation sizes to the overall market forecast.

(ii) APPLICATION AREAS - USAGE AND TRENDS

- The most significant observation on application areas is that there is a mild, and, in some cases a strong trend towards On Site Services over the next 12 months. The trend is strongest in growth rate in the Food/Drink, Non Metallic and Fabricated Metal manufacturing industries; the application areas which are particularly affected by this trend are:

  - General Accounting/Payroll
  - Financial Analysis/Planning
  - Production/Inventory Control

- In all application areas (excepting Portfolio Management) conventional external services as the source of supply will decrease; clearly some, or all of this reduction will be absorbed by the trend towards On Site Services. Indeed the most frequent use of extenal services is currently in those application areas (as above) which are the best growth prospects for On Site Services.

- In terms of overall computerisation regardless of source the application areas which are currently and in the near future the most frequently computerised are:

  - General Accounting/Payroll
  - Financial Analysis/Planning
  - Production/Inventory Control

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- The application areas which offer the best growth prospects for all external services (including On Site) are:

  - General Accounting/Payroll
  - Financial Analysis/Planning
  - Production/Inventory Control

  The latter two are subject to less variation to meet the needs of different European countries and thus represent the better investment potential.

D. BELGIUM/LUXEMBOURG

- All large organisations are computer users (in-house, external or both) and there are some very significant indications of a broad move in the direction of increasing user independence. After two decades of centralisation of in-house computing the market will experience an evolution towards decentralisation, not a revolution.

- The opportunity which exists for external services vendors is to offer an acceptable and alternative form of de-centralisation. To be acceptable in this market such a service must have all the important user attractions of an in-house system plus some in addition. The customers for such services will increasingly be the user departments whose loyalty to the in-house computer department may well be disturbed.

- Overall, the level of external services usage is low at 33%; (refer to Exhibit VI-D.1); this is the next to lowest percentage in Europe and compares poorly (if you are an external services vendor) with, say, France at 50%, Sweden at 71% and Norway at 75%.

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SUMMARY OF HIGHLIGHTS BY INDUSTRY

BELGIUM/LUXEMBOURG

ISIC	INDUSTRY	RESP %'GE	EXTERNAL SERVICES USAGE				IN HOUSE
			ALL	B	RB	I	
11-13	Agriculture/Fishing	-	-	-	-	-	-
21-29	Mining/Quarrying	-	-	-	-	-	-
31	Food/Drink/Tobacco	83	20	17	3	10	93
32	Textiles/Clothing	75	33	22	0	11	89
33	Wood Products	100	50	0	0	50	100
34	Paper/Print/Publ.	88	50	50	7	14	86
35	Chem./Petrol/Coal	67	54	30	7	31	85
36	Non-Metallic Prod.	53	50	25	0	25	75
37	Basic Metal	70	25	19	6	6	81
38-39	Fabricated Metal Prod.	68	38	31	3	8	66
41	Electricity/Gas	100	50	50	0	25	50
50	Construction	61	18	12	0	6	94
61-63	Wholesale/Retail	43	32	29	0	6	87
71-72	Transport/Comm.	80	0	0	0	0	25
81	Financial (Belgium)	64	19	8	2	13	92
81	Financial (Lux)	86	16	0	0	16	89
82	Insurance	63	30	30	0	10	100
83	Business Services	75	50	50	0	0	50
91	Government	-	-	-	-	-	-
OVERALL WEIGHTED AVERAGE		66	33	23	3	14	82

EXHIBIT VI-D.1

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- The largest users of external services are in:

1.	Chemical/petroleum/coal/rubber	(54%)
2.	Paper/printing/publishing	(50%)
3.	Non metallic products	(50%)
4.	Electricity/gas	(50%)
5.	Business services	(50%)

- The smallest users of external services are in:

1.	Transport/communications	(0%)
2.	Financial (Luxembourg)	(10%)
3.	Construction	(18%)
4.	Financial (Belgium)	(19%)
5.	Food/drink/tobacco	(20%)

- The small usage of external services is complemented by correspondingly high usage of in-house services. The degree of computerisation however is similar to the other countries.

- Organisations in Belgium and Luxembourg have a preference for self help. This is probably the least rewarding European market for vendors of external services.

- Many more organisations in the sample use Batch services. Indeed 70% of external service users are using Batch; this compares with 9% using Remote Batch and 42% using Interactive.

- Users of Batch services are concentrated in the lower expenditure categories; in fact 75% of the organisations (which gave information on expenditure and growth) spend less than 2M BF annually.

- Similarly spending on Remote Computing is at a low level. 70% of Remote Batch services users spend less than 2M BF annually; more than 80% of Interactive users spend less than 5M BF annually, and, 57% spend less than 2M BF.

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(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

- In general the Belgium/Luxembourg market is one of the least rewarding in Europe for external service vendors. The market size is small for conventional (Batch, Remote Batch, Interactive) services; nor are the growth prospects encouraging in large organisations.

- BATCH SERVICES will stagnate generally (see Exhibit VI-D.2), although some growth will be found in the lowest and highest expenditure categories; this service is more a small organisation market and it is there that the overall market growth forecast will be achieved. (See Exhibit VI-D.3).

- REMOTE BATCH SERVICES have the best growth prospects of any type of external computing service. The forecast 14% is the second best in Europe; this suggests that in this do-it-yourself market Remote Batch is considered to be user-controlled.

- INTERACTIVE SERVICES appear to have a bleak future with a large organisation user estimated decline of - 11%. Entirely new users and medium/small size organisations will make up the difference between this figure and the overall market forecast.

- ON SITE SERVICES have not yet made any measurable impact in this market although there are modest growth plans in some industries now.

- Any growth prospects which may exist for Interactive services in their present form will be found in the following industries:

    1. Fabricated metal products
    2. Financial services
    3. Insurance
    4. Wood Products
    5. Paper/printing/publishing

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

BELGIUM/LUXEMBOURG

SERVICE	EXPENDITURE RANGE (Belgian Francs)						OVERALL
	100K	100K - 500K	500K - 2M	2M - 5M	5M - 10M	10M	
Batch	+ 30%	- 19%	- 18%	- 23%	+ 9%	+ 5%	+ 1.3%
Rem. Batch	+ 10%	0%	- 5%	+ 7%	+ 2%	+ 24%	+ 13.9%
Interactive	0%	- 1%	- 13%	- 3%	+ 58%	- 48%	- 11.1%
On Site	0%	0%	0%	0%	0%	+ 3%	+ 1.4%

Note: The percentages under specific expenditure ranges are simple averages of respondant estimates; the "Overall" figures are weighted averages according to expenditure range.

EXHIBIT VI-D.2

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

BELGIUM/LUXEMBOURG

SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
Large	+ 1%	+ 14%	- 11%	+ 1%
Medium *	+ 15%	+ 20%	+ 5%	N/A
Small *	+ 25%	+ 5%	+ 5%	N/A
OVERALL +	+ 18%	+ 12%	+ 24%	N/A

Notes:

* These figures are provisional INPUT estimates, as yet unsupported by statistically significant field research.

\+ Source: "Computer Services Markets in Europe", INPUT, September 1978.

o Entirely new user growths not quantified by organisation size but included in the overall figures.

EXHIBIT VI-D.3

(ii) APPLICATION AREAS - USAGE AND TRENDS

- The highest proportion of large organisations are computer users (external or in-house) in the following applications (in descending order of usage):

  1. General Accounting/Payroll
  2. Marketing/Sales
  3. Production/Inventory Control
  4. Financial Analysis/Planning

- In the financial sectors, Portfolio Management and International Cash Dealing are the applications areas of greatest usage.

- External services are used more for the following application areas:

  1. General Accounting/Payroll
  2. Marketing/Sales
  3. Financial Analysis/Planning
  4. Production/Inventory Analysis
  5. Personnel

- In the financial sectors use of external services is negligible.

- The small trend towards On Site Services is most likely to occur in:

  - Engineering/Scientific
  - Production/Inventory control *
  - Personnel
  - Financial Analysis/Planning *

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- There is some correspondance * between the above trends and the application areas which are expected to experience the best overall growth in usage. These are:

  1. General Accounting/Payroll
  2. Financial Analysis/Planning *
  3. Production/Inventory Control *

- In the financial sector there is no evidence of any shift towards On Site Services; the growth in usage of Portfolio Management and General Banking applications will be completely covered by internal services.

- The best prospects for each of the previously mentioned best growth applications will be found in specific industries:

- General Accounting/Payroll	- Basic metal * Fabricated metal * Electricity/Gas * Construction * Insurance
- Financial Planning/Analysis	- Food/Drink/Tobacco Textiles/Clothing * Chemicals/Petroleum
- Production/Inventory Control	- Paper/Printing * Non Metallic *

- The industries marked with an asterisk (*) offer good growth for two of the three application areas. Those industries should therefore be the most productive targets for future sales campaigns.

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E. NETHERLANDS

- The Netherlands is the second highest user of external services in the European countries surveyed with 44% of organisations in the survey sample reporting usage. This counter-balances the relatively low frequency of in-house usage which was found to be 76%.

- The frequency of external services usage in the sample at 44% is mid-way between the extremes found in other European countries and similar to the UK and French markets.

Sweden	72%
Holland	44%
UK	43%
France	41%
Belgium/Lux	33%
Germany	25%

- In all countries there is a counter-balancing relationship between the frequency of external services usage and in-house installations. In the Netherlands (see Exhibit VI-E.1) the second highest usage of external services is counter-balanced by the third lowest in-house usage. Sweden/Norway has the highest external services usage (72%) matched with the lowest in-house usage (70%); conversely Germany has the lowest external services usage (25%) matched with the highest in-house usage (90%).

- 20% of the organisations in the sample use both external and in-house services. This is a favourable market factor in that computer users are more likely to look for both external and in-house sources of supply. Only in Sweden/Norway is this factor more encouraging where the overlap is 42%; elsewhere this factor is the same (France) or less at 15% or 16% in the UK, Germany and Belgium/Luxembourg.

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SUMMARY OF HIGHLIGHTS BY INDUSTRY

NETHERLANDS

ISIC	INDUSTRY	RESP %'GE	EXTERNAL SERVICES USAGE				IN HOUSE
			ALL	B	RB	I	
11-13	Agriculture/Fishing	100%	50%	50%	0%	50%	100%
21-29	Mining/Quarrying	-	-	-	-	-	-
31	Food/Drink/Tobacco	45%	41%	22%	11%	22%	93%
32	Textiles/Clothing	42%	63%	63%	0%	13%	75%
33	Wood Products	20%	100%	100%	0%	0%	0%
34	Paper/Print/Publ.	32%	0%	0%	0%	0%	89%
35	Chem./Petrol/Coal	30%	42%	42%	8%	17%	75%
36	Non-Metallic Prod.	10%	0%	0%	0%	0%	100%
37	Basic Metal	70%	57%	14%	14%	29%	71%
38-39	Fabricated Metal Prod.	37%	38%	14%	14%	38%	81%
41	Electricity/Gas	24%	83%	50%	33%	33%	67%
50	Construction	64%	61%	33%	22%	33%	39%
61-63	Wholesale/Retail	45%	38%	31%	0%	23%	85%
71-72	Transport/Comm.	40%	25%	25%	0%	0%	100%
81	Financial/Banks	46%	50%	42%	0%	17%	92%
81	Foreign Banks	-	-	-	-	-	-
82	Insurance	35%	20%	20%	0%	10%	100%
83	Business Services	70%	43%	43%	14%	29%	29%
91	Government	20%	80%	40%	60%	10%	40%
OVERALL WEIGHTED AVERAGE		40%	44%	28%	10%	20%	76%

EXHIBIT VI-E.1

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- Some industries, notably Wood and Government are wholly or nearly wholly dependant on external services for computer usage. Conversely other industries, particularly Paper/Printing/Publishing and Non-Metallic Products are more dependant of in-house services.

- The industries with above average usage of both external and internal services are Agriculture/Fishing, and Financial Institutions; perhaps these sectors are approaching saturisation point for existing products and services.

- Of the organisations which use external services in the Netherlands, 28% use Batch Services (23% Belgium/Lux and 53% Sweden/Norway), 10% use Remote Batch (3% Belgium/Lux and 23% Sweden/Norway), and 20% use Interactive (14% Belgium/Lux and 33% Sweden/Norway).

- The most frequent users of Remote Batch services are to be found in Utilities, Construction and Government.

- The most frequent users of Interactive Services are to be found in Agriculture/Fishing, Fabricated Metal Manufacturing, Utilities and Construction.

(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

- Growth prospects for Batch and Remote Batch Services in the large organisations included in the survey are pessimistic; the future is however optimistic for Interactive Services. This has been determined in two ways which are mutually cross-checking:

    1. By comparing the numbers of votes for "growth" or "decline" which respondants gave in answer to the question "What growth or decline do you expect in your usage"?

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

NETHERLANDS

SERVICE	EXPENDITURE RANGE (D. Guilders)						OVERALL
	10K	10K - 25K	25K - 50K	50K - 100K	100K - 200K	200K	
Batch	+ 0%	+ 1.3%	- 43.3%	- 11.3%	- 26.7%	- 11.3%	- 16.8%
Rem. Batch	+ 50%	- 5.0%	- 27.5%	0%	- 10.0%	+ 6.4%	- 0.7%
Interactive	- 50%	0%	+ 1.7%	0%	+ 6.9%	+ 28.0%	+ 15.8%
On Site	+ 10%	-	+ 37.5%	-	+ 6.7%	+ 52.0%	+ 30.9%

Note: The percentages under specific expenditure ranges are simple averages of respondant estimates; the "Overall" figures are weighted averages according to expenditure range.

EXHIBIT VI-E.2

2. Respondants were also asked to quantify as an annual percentage the growth or decline rate in their demand estimate. (See Exhibit VI-E.2).

- BATCH SERVICES - Overall the voting is 12 to 7 for decline. There are 20 votes in favour of stability and this is the most likely trend in the middle expenditure categories where the growth and decline votes balanced. In percentage terms the overall demand forecast by users is - 16.8%.

- REMOTE BATCH SERVICES - The overall trend is similar to, but less severe than, Batch Services. Both the voting and the quantified percentage estimates indicate a decline of - 0.7%. Modest growth however can still be expected from the big expenditure users (over 200K Guilders); otherwise the trend is towards slight decline.

- INTERACTIVE SERVICES - Overall the trend is towards good growth (15.8%), particularly from the big expenditure users. The growth curve starts with positive values at an expenditure level of 50K Guilders and the growth rates increase markedly towards the over 200K Guilders expenditure category.

- The above trends for conventional external services apply to large organisations which are currently using external services; new user demand is not necessarily included.

- The total market forecasts can be related to these trends only after the volume of new users is known; this is likely to be enhanced after vendor promotions of new products and services of which the users are probably currently unaware.

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

NETHERLANDS

SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
Large	- 13%	- 1%	+ 16%	+ 31%
Medium *	0%	+ 8%	+ 15%	N/A
Small *	+ 10%	+ 2%	+ 5%	N/A
OVERALL +	+ 14%	+ 10%	+ 25%	N/A

Notes:

* These figures are provisional INPUT estimates, as yet unsupported by statistically significant field research.

\+ Source: "Computer Services Markets in Europe", INPUT, September 1978.

o Entirely new user growths not quantified by organisation size but included in the overall figures.

EXHIBIT VI-E.3

- COMBINATION SERVICES, or On Site Computing, is expected to grow at 31% per annum. This is probably representative of the overall market since users in all sizes of organisation will find a valid reason for this form of distributed processing. Only in Norway is there a higher forecast growth rate (39%). However, growth in DISTRIBUTED (in-house) processing is at the lowest level. It appears from the corresponding figures for all countries in the survey that the trend is either more strongly disposed towards the external or the in-house approach:

	COMBINATION (External)	DISTRIBUTED (In House)
Norway	39	32
Holland	31	23
Sweden	23	30
France	18	51
Germany	10	22

- Exhibit VI-E shows external services growth, by size of company.

(ii) APPLICATION AREAS - USAGE AND TRENDS

- The most computerised application areas in Industrial Organisations overall regardless of source are:

1. Bookkeeping/Payroll
2. Production/Stock Control
3. Marketing/Sales
4. Personnel
5. Financial Analysis/Planning

Financial Analysis is gradually taking over fourth place from Personnel.

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- The most frequent use of external services currently occurs in:

  1. Bookkeeping/Payroll
  2= Personnel
  2= Technical/Scientific
  4. Marketing/Sales

  In 12 months time Bookkeeping/Payroll and Technical/Scientific will still be the most popular followed by Financial Analysis/Planning and Personnel.

- Some significant source changes are anticipated by users over the next year. The most notable of those is the migration to internal and combination services generally at the expense of conventional external services, particularly Batch and Remote Batch.

- The move towards internal services will be most pronounced in:

  1. Financial Analysis/Planning
  2. OR
  3. Technical/Scientific
  4. Numerical Control
  5. CAD

- The move towards combination services will be most pronounced in:

  1= Production/Stock Control
  1= Bookkeeping/Payroll
  3= Marketing/Sales
  3= Financial Analysis/Planning
  5. Numerical Control

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- Overall, the best growth in usage will occur in:

  1= Production/Stock Control
  1= Financial Analysis/Planning
  2. Marketing/Sales
  3. Bookkeeping/Payroll
  4. Personnel
  5. Statistical Analysis

- The top two growth prospects also have the best potential for distribution on standard products in many European countries since they are largely unaffected by differences in law, taxation and accounting conventions.

- The most computerised application areas in Financial Organisations both now and in the near future are:

  1. Bookkeeping
  2. Financial Transactions
  3. Payroll
  4. Financial Consolidation

- The application areas for which external service vendors are most frequently used are:

  1. Payroll
  2. Financial Analysis/Planning

- As in the industrial organisations the trend in sourcing of computer applications is moving away from conventional Batch and Remote Batch services towards in-house or combination services. Both approaches rely increasingly on mini computers.

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- There is a gradual migration of computer load to in-house facilities for (in order of trend strength):

  1. Portfolio Management
  2. Payroll
  3. Financial Analysis/Planning

- A migration to combination services will favour the following application areas:

  1. Statistical Analysis
  2. OR
  3. Financial Analysis/Planning

- Overall the best growth in usage regardless of source is occurring in:

  1. Financial Transaction/Consolidation/Bookkeeping
     (internal and combination)

  2. Statistical Analysis
     (combination)

  3. Portfolio Management/Financial Analysis/Planning
     (internal and combination)

- Generally, Business Services organisations are relatively small and their computer needs correspondingly simple. Payroll is the most frequently computerised application area by internal or external means. In house installations are occupied secondarily with Bookkeeping, support for consultancy projects is the secondary use of external services.

- The best growth will come from Bookkeeping.

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F. SWEDEN/NORWAY

- All large organisations are computer users (in-house, external or both) and there are some very significant indications of a broad move in the direction of increasing user independance. After two decades of centralisation of in-house computing the market will experience an evolution towards decentralisation, not a revolution.

- Decentralisation of computing and increased user independance will be expressed in either of two ways:

    1. Distributed data processing (DDP) which is an in-house approach to the re-organisation of computing around the user

    2. Combination services (or on site computing) which provides the same facility for the user as provided by DDP with an external souce of mainframe and telecommunications support.

- Decentralisation in these two forms will increasingly bring in-house computer departments and external service vendors into direct competition for each user requirement. Hitherto, service companies have tended to supplement in-house facilities in areas which have been outside their scope or capacity; in future the traditional applications of in-house computing will be opened up - but just once, and external service suppliers must be energetic and thorough in seeking out the opportunities.

- The trend towards DDP is already mobilised, one indication being the ratio of installed centralised to distributed hardware (see Exhibit VI-F.1). Although in-house computer services are generally centralised, currently some industries show a significantly noticeable tendency towards distributed processing (ratio of 1/1 or better); these are Paper/Printing, Chemicals/Petrochemicals, Basic Metal, Gas/Electricity and Wholesale/Retail. (Later sub-sections contain further evidence of this trend.)

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USAGE OF EXTERNAL SERVICES - NORWAY AND SWEDEN COMPARED

INDUSTRY	NORWAY				SWEDEN			
	B	RB	I	ALL	B	RB	I	ALL
Agriculture	0%	0%	0%	0%	75%	75%	0%	100%
Mining/Quarrying	0%	0%	100%	100%	60%	40%	80%	80%
Food/Drink	67%	17%	0%	67%	61%	22%	33%	78%
Textile/Clothing	33%	0%	0%	33%	50%	0%	50%	50%
Wood	0%	50%	50%	50%	100%	0%	0%	100%
Paper/Print.	33%	33%	67%	67%	47%	27%	33%	50%
Chem./Petroch.	20%	40%	40%	40%	47%	5%	42%	79%
Non Metal	100%	100%	0%	100%	20%	0%	20%	40%
Basic Metal	0%	0%	0%	0%	13%	13%	38%	50%
Metal Mfg.	40%	60%	40%	100%	70%	26%	33%	78%
Gas/Electricity	0%	0%	0%	0%	100%	0%	100%	100%
Construction	100%	0%	0%	100%	64%	14%	21%	86%
Wholesale Ret.	64%	18%	9%	73%	47%	16%	13%	56%
Transp./Storage	67%	0%	0%	67%	29%	29%	43%	57%
Fina./Real Est.	90%	40%	50%	90%	58%	21%	54%	75%
AVERAGES	52%	32%	29%	75%	54%	20%	34%	71%

EXHIBIT VI-F.1

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- In almost all industry groups a large external service usage is complemented by a correspondingly low in-house computer usage, and vice-versa. (See Exhibit VI-F.1). An indication of the degree of computerisation (by either means) can be gained from adding the two percentages: it is interesting to note that the compound figures show relatively little variation.

  1. Mining/Quarrying (157%)
  2. Non Metallic Products (150%)
  3. Metal Manufacturing (146%)
  4. Basic Metal (144%)
  5. Financial Inst./Services (142%)

- Only one industry group contains any non-users of either an in-house or an external service. This is the accountants and managing consultants section of the financial institutions group; 6% of companies in this group are too small to justify computer usage. Otherwise, all companies in the sample are computer users and can be treated as knowledgeable sales prospects.

- Overall the level of external services usage is high and is currently running at 72%; the Norwegian companies in the sample are more active, 75% of them are using external services compared with 71% in Sweden.

- The largest users of external services are:

  1. Construction (88%)
  2= Mining/Quarrying (86%)
  2= Metal Manufacturing (86%)
  4. Financial Institutions/Services (80%)

- The smallest users of external services are:

  1. Textile/Clothing/Leather (40%)
  2. Basic Metal (44%)
  3. Non-Metallic Products (50%)

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- More companies use Batch services then either Remote Batch or Interactive. In fact, overall 53% of the companies in the sample use Batch services; there is little variation between Sweden and Norway, the figures being 54% and 52% respectively.

- Remote Batch services are the least used by companies in the sample; just 23% of the companies overall use Remote Batch services. This varies quite significantly between Sweden (20%) and Norway (32%).

- Overall Interactive services are being used by 33% of companies in the sample; again this varies noticeably between Sweden (34%) and Norway (29%).

- The most noticeable difference between the external services markets in Sweden and Norway is in the area of Remote Computing Services. Whilst Norway is the bigger user of Remote Batch Services (50% more than Sweden), Sweden is the bigger user of Interactive Services (20% more than Norway).

(i) EXTERNAL COMPUTING SERVICES - TRENDS AND EXPENDITURE

- Not only are Swedish and Norwegian large organisations frequent users of external services, they are also big spenders. Around one third of current users spend more than 1M Kroner annually; a further quarter spend between ½M and 1M Kroner annually.

- The growth (or decline) of this expenditure favours Norway as the more exciting market, albeit on a smaller market size. (See Exhibit VI-F.2).

- In both countries the prospects for BATCH SERVICES are pessimistic; more so in Sweden than in Norway.

- REMOTE BATCH SERVICES show good potential in Norway where a 29% growth rate is estimated in a market where Remote Batch usage is much higher than in Sweden.

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USER ESTIMATES OF GROWTH - EXTERNAL SERVICES

	SERVICE	EXPENDITURE RANGE (Kroner/annum)						OVERALL
		10K	10K - 50K	50K - 200K	200K - 500K	500K - 1M	1M	
SWEDEN	Batch	+ 17%	- 5%	- 5%	- 17%	- 15%	- 6%	- 15.2%
	Rem. Batch	- 10%	0%	- 8%	+ 10%	- 16%	+ 9%	+ 1.4%
	Interactive	0%	- 32%	- 3%	+ 3%	- 6%	+ 17%	+ 7.5%
	On Site	0%	0%	+ 50%	+ 11%	+ 30%	+ 21%	+ 23.2%
NORWAY	Batch	-	0%	- 63%	+ 34%	- 33%	+ 2%	- 5.6%
	Rem. Batch	-	+ 70%	-	+ 70%	+ 17%	+ 24%	+ 28.8%
	Interactive	-	+ 67%	-	0%	+ 54%	+ 27%	+ 31.5%
	On Site	-	+ 35%	+ 25%	+ 15%	+ 20%	+ 55%	+ 38.8%

EXHIBIT VI-F.2

- INTERACTIVE SERVICES usage in Sweden is already larger than in Norway and this may explain the smaller growth rate. The bigger growth rate in Norway is also inflated by the high estimated growth in the lower expenditure categories; this characteristic is in complete contrast with the pattern in Sweden.

- ON SITE COMPUTING SERVICES are likely to grow at the highest annual rate for any external computing service. Apart from the increasing desire by users for some independance from their traditional computer service suppliers they are also finding an externally supported local mini an operationally and managerially attractive system.

- Growth variations between different expenditure categories give a broad clue on the direction of migration. Small budget Batch is probably being transferred to a distributed mini or to a Remote Batch service, particularly in Norway. This probably applies also in the case of the large budget category excepting that the computer load will also be absorbed by the central mainframe computer. Similarly On Site Services will benefit from the creation of new computer loads with big spenders and inheritance of existing small computer loads from the existing supplier.

- All the above growth rate analysis applies to large organisations. Exhibit VI-F.3 shows the changes in growth rate for each type of service by organisation size.

- The best growth prospects for distributed/combination services will be found in the following industry sectors and application areas:

INDUSTRY	APPLICATION
Metal Manufacturing	General Accounting/Payroll
Mining/Quarrying	Production/Inventory
Wood Products	Marketing/Sales
Basic Metal	

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EXTERNAL SERVICES GROWTH BY COMPANY SIZE: OVERALL MARKET

	SIZE	BATCH	REM. BATCH	INTERACTIVE	ON SITE
SWEDEN	Large	- 15%	+ 1%	+ 8%	+ 23%
	Medium *	+ 5%	+ 15%	+ 15%	N/A
	Small *	+ 20%	+ 7.%	+ 10%	N/A
	OVERALL +	+ 15%	+ 10%	+ 25%	N/A
NORWAY	Large	- 6%	+ 29%	+ 32%	+ 39%
	Medium *	+ 5%	+ 20%	+ 20%	N/A
	Small *	+ 20%	+ 15%	+ 10%	N/A

Notes: *. These figures are provisional INPUT estimates, as yet unsupported by a statistically reliable amount of field research.

** Source: "Computer Services Market in Western Europe" by INPUT, September 1978.

N/A Not available

EXHIBIT VI-F.3

000003

- Since Metal Manufacturing and Mining/Quarrying are also the best growth areas for Interactive Services, a vendor's strategy for On Site Computer Services should be concentrated in these two industry sectors first.

- Application areas will be the main multiplier for increasing business. Those with the overall best growth potential are:

  - Financial Analysis/Planning
  - Production/Inventory
  - Marketing/Sales
  - General Accounting/Payroll.

(ii) APPLICATION AREAS - USAGE AND TRENDS

- As previously stated application areas will be the multiplier for growth in services - or, conversely the agent of decline when migration from one service to another is occurring. Growth and decline may be attributed to external computing services as follows:

  - the growth expected for Remote computing services (see Exhibit VI-F.3) is more likely to come from the marketing/sales, personnel and financial analysis/planning application areas.

  - the decline forecast for Batch services is more likely to come from the engineering/scientific, production/inventory and general accounting/-payroll application areas.

  - the growth expected in combination services is more likely to come from marketing/sales, personnel, general accounting/payroll and production/inventory; in the last two application areas the opportunity may exist for suppliers of a combination service to replace the existing Batch suppliers.

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- The highest proportion of large organisations are computer users (external or in-house) in the following application areas (in descending order):

  1. General accounting/payroll
  2. Financial analysis/planning
  3. Marketing/sales
  4= Production/inventory
  4= Personnel

- Users of external services do so more in:

  1. General accounting/payroll
  2. Financial analysis/planning
  3. Personnel
  4. Production/inventory
  5. Marketing/sales

- A comparison of the overall computer usage and the external usage shows a switch in the proportion of personnel and marketing/sales. Surprisingly perhaps, personnel is computerised more with an external service.

- A surprisingly high proportion of respondants claim to be using a combination service; engineering/scientific, financial analysis/planning, marketing/sales and general accounting/payroll are the most popular applications.

- In two years, the order of applications popularity for processing by a combination service is:

  1. General accounting/payroll
  2. Marketing/sales
  3. Financial analysis/planning
  4. Production/inventory

  This correlates well (three out of four) with the trend analysis above.

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- The most promising application areas for future growth are:

  1. Financial analysis/planning
  2. Production/inventory
  3. Marketing/sales
  4. General accounting/payroll.

G. U.S. COMPARISONS

(i) BY MODE OF SERVICE

- The continued effort by EDP managers to convert processing services revenues to in-house is reflected by Exhibit VI-G.1; some services opportunities are also shown in the exhibit.

  - The small number of respondents in the processing services categories (other than interactive services) reflects the relatively minor role EDP managers currently play in the purchase of such services.

  - The stable position of input/output services reflects the lesser vulnerability of these services (COM, etc.), relative to being moved in-house.

  - The systems software and applications software expenditures growth is almost identical to INPUT's forecast although INPUT's forecast was created prior to the tabulation of user panel results; the close correlation adds support to the forecast.

- Education is particularly strong with a high response rate and a good growth of 22%; education deserves re-evaluation as an opportunity to vendors of related services.

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EXHIBIT VI-G.1

AVERAGE ANNUAL EXPENDITURES PER RESPONDING EDP MANAGER FOR OUTSIDE SERVICES AND SOFTWARE IN 1977 AND 1978 BY CATEGORY OF SERVICE

CATEGORY OF SERVICE	1977 EXPENDITURES AVERAGE IN THOUSANDS	NUMBER OF RESPONDENTS	1978 EXPENDITURES AVERAGE IN THOUSANDS	NUMBER OF RESPONDENTS	PERCENT CHANGE IN EXPENDITURES 1977 vs. 1978
PROCESSING SERVICES					
INTERACTIVE TIMESHARING	$174	116	$147	121	(16)%
REMOTE BATCH	253	30	156	37	(38)
BATCH	263	28	158	29	(40)
INPUT/OUTPUT	41	92	41	96	-
SOFTWARE PRODUCTS					
SYSTEMS SOFTWARE	37	212	44	215	19
APPLICATIONS SOFTWARE	43	161	52	178	21
PROFESSIONAL SERVICES					
CONTRACT PROGRAMMING AND DESIGN	111	104	116	103	5
EDP CONSULTING	63	49	47	60	(25)
EDUCATION	23	179	28	186	22
OTHER	10	9	15	11	50
FACILITIES MANAGEMENT	123	2	123	2	-
MAINTENANCE	107	137	134	136	25

NOTE: THE DECLINE IN PROCESSING SERVICES REFLECTS THE INTENT OF EDP MANAGERS, WHO IN FACT DO NOT CONTROL THE MAJOR PORTION OF PROCESSING SERVICES REVENUES. THEREFORE, THIS DECLINE IS NOT INCONSISTENT WITH INPUT'S FORECAST OF GROWTH IN PROCESSING SERVICES; THIS GROWTH TAKES PLACE PREDOMINANTLY IN AREAS OTHER THAN THE IN-HOUSE EDP ESTABLISHMENT.

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EXHIBIT VI-G.2

ANTICIPATED CHANGES IN EXPENDITURES FOR SERVICES BY RESPONDENT EDP MANAGERS, 1978 VERSUS 1977 BY INDUSTRY SECTOR

TYPE OF SERVICE	DISCRETE MANUFACTURING	PROCESS MANUFACTURING	TRANSPORTATION	UTILITIES	BANKING & FINANCE	INSURANCE	EDUCATION	RETAIL	WHOLESALE	OTHER	ALL INDUSTRIES
PROCESSING SERVICES											
INTERACTIVE TIMESHARING	(30)%	3 %	(7)%	9 %	18 %	(32)	16 %	(55)%	(14)	7 %	(16)%
REMOTE BATCH	(60)	(21)	-	45	(12)	176	16	-	6	0	(38)
BATCH	(55)	0	40	33	(25)	(7)	8	11	36	0	(40)
INPUT/OUTPUT	3	1	83	(16)	0	(9)	40	13	(11)	0	0
SOFTWARE PRODUCTS											
SYSTEMS SOFTWARE	18	14	(32)	12	(8)	25	76	(21)	36	16	19
APPLICATIONS SOFTWARE	31	92	(17)	36	7	42	(20)	(17)	(34)	29	21
PROFESSIONAL SVCS.											
CONTRACT PROGRAMMING AND DESIGN	(6)	56	53	(50)	113	16	8	9	6	0	5
EDP CONSULTING	(43)	(30)	-	6	0	(14)	(29)	(85)	(76)	422	(25)
EDUCATION	26	30	20	19	20	21	38	0	140	(20)	22
OTHER	-	50	56	(50)	-	-	16	-	183	-	50
MAINTENANCE	37	28	60	20	5	23	20	15	(7)	45	25

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- Maintenance services are also an interesting opportunity with a 25% growth between 1978 and 1979 over a relatively high base. Maintenance is being considered in-depth in a current multiclient study being carried out by INPUT.

(ii) RESPONDENTS' USE OF SERVICES VENDORS BY INDUSTRY SECTOR

- In Exhibit VI-G.2 the changes in expenditures for services by respondents are defined by industry sector.

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SECTION VII. OPPORTUNITIES AND GROWTH OPTIONS

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VII. OPPORTUNITIES AND GROWTH OPTIONS

A. ACHIEVING MULTI-NATIONAL STATUS

- The variety of approaches that are open to a European vendor entering an additional country market should not be regarded as just so many options. In reality, of course, there is only one ideal solution for a given situation.

- In addition to the legislative limitations that apply to certain types of services vendors (e.g., banks), there can be ownership-related restrictions on markets served (conflict of interest), nationality-related barriers and government refusals that can negate the achievement of otherwise attractive transactions.

- The pros and cons of the four main categories of options are examined below.

- Each European computer services country market has a business/market profile that is unique and which places restrictions on the type of approach that can be adopted by suppliers but that also offers concrete opportunities to the discerning vendor.

- There is little point, for example, in attempting to serve the Dutch market from Dusseldorf, whatever the attractions of the logistics. The Germans and Dutch don't mix well.

- In the same way it must be recognized that there are two business communities in Belgium, which are separated by much more than mere languages.

- These nationality-related limitations are far more serious, in a sense, than the "all or nothing" type of barriers that governments can impose. Whereas with the right approach and shrewd negotiations, the latter can be overcome, the former are unlikely to change in the foreseeable future, regardless of the resources deployed.

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- It is galling for a U.S. vendor to be refused permission to acquire a French company on the ground of conflict with the "national interests". However, most situations of this nature can be avoided if planned for. Perseverance will eventually win through, particularly if, for example, adequate pressure is brought to bear on authorities through the unions.

(i) GOING IT ALONE

- Despite the many difficulties and often high start-up costs associated with starting from scratch in a foreign country, the long term benefits of this approach are frequently well worth the effort.

- Provided that timing is not crucial, large investments are not necessary and negative cash flow can be kept within $200,000 for a small three man office. The vital keystone to operations of this nature is the individual chosen to head the new subsidiary.

- There is very little excuse justification for not choosing a national for this important role, however tempting it may be to place control in the hands of in-house staff. Each European country market environment is a matrix of very particular laws, regulations, customs and habits that take years for an outsider to grasp. It is far better to buy this knowledge in the shape of a seasoned professional who has a successful track record with the competition or related services markets.

- When all is said and done, finding space, recruiting staff, doing battle with the local PTT, establishing an image, etc., can be far less fearsome than dealing with internal politics inherited from a merger or legal battles over territory from a joint venture and similar hidden effects of otherwise attractive operations.

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- The final choice will be made by balancing the related factors of revenue targets, product mix, country chosen, internal/external personnel resources, financial aspects and the like. A basic fact is that market opportunities exist in Europe for new entries, and alert companies will capitalize on them.

(ii) THE JOINT VENTURE

- While offering some attractive options in the short and medium term, the joint venture is rarely a long term strategy that offers unfettered growth. Inevitably, the time will come when the two (or more) partners' interests will conflict, resulting in internal stress or a limitation in expansion for one or several of the participants.

- In the early stages the attractions are many:

  - The combination of hitherto separate products and services can create a viable new market opportunity for both partners.

  - In the European environment, the addition of American technology to a domestic operational entity comprising the necessary local contracts and understanding of the national market can prove a powerful combination.

  - A truly synergistic venture is not too difficult to identify (e.g., hardware systems vendor with a local systems house having the appropriate industry specialization).

  - Start-up funding (and consequently risk) is shared, i.e., lessened for both partners.

  - There are practically no governmental/legislative restrictions on the creation of most joint venture arrangements in Western Europe.

  - Both (all) partners can persuade themselves they are getting the best deal, etc.

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- But in the short term, simple problems can provide points of contention: how are the start-up costs spread? How are the early losses recouped? (frequent source of acrimony).

- Longer term problems can be worse. For example, if the agreement allots a territory to a partner who reveals himself incapable of handling it, how does the other partner regain control without jeopardizing the parts of the agreement that are functioning well?

- For these and similar reasons, the best joint venture is one of finite duration, i.e., having a stated life after which the option is provided to both partners of renegotiating the conditions, shares and scope of the original agreement. At the very least, it can defuse the on-going operational tensions during the current agreement, in that they will "not last for ever". In the best case it allows one or both partners to redefine the scope of his intentions and restructure his efforts accordingly.

(iii) THE SPIN-OFF OPTION

- The option presented here is basically that of identifying, for acquisition or joint venture, a large in-house computer services center that offers:

  - A large computer resource that is compatible with the processing service of the acquiring vendor.

  - Substantial in-house processing that is unlikely to be displaced by a change of ownership of the centre.

  - A good opportunity for entering into close contact with the sector market in which the computer centre's parent is active.

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- The former are all short-term benefits. Longer term benefits can include:

  - Top-level contacts in major company groups (again through the parent of the spun-off computer centre).
  - Availability of an on-going concern with an established client base.
  - An established staff team.

- The most crucial aspect of such takeovers is the ability of the acquirer to organize quickly an effective marketing effort to establish a client base. For obvious reasons marketing is unlikely to be strong in the in-house center and the number of clients is most likely to be limited.

- Ideally, a long-term contract of service to the spin-off's parent is an integral part of the agreement and in both parties' interests: the parent receives a guarantee of the continued availability of vital services; the acquirer obtains a guaranteed minimum revenue on which to build a commercially viable business.

- What can prompt a parent company to enter into such an arrangement? In most cases, the initiative must come from the acquirer, who needs to convince the parent that there is:

  - A natural fit of capabilities within the two companies ("we understand your business").
  - Compatibility of product and service between the two.
  - A commercial market for the combined product/services offering of the two companies.
  - Marketing know-how from the acquirer.
  - Real (momentary) gains to be had from the joint venture or acquisition.

- The main objective is to exploit the better perception of the market potential (by the acquirer) in exchange for a foothold in a foreign market and the backing of a well known domestic (if not international) parent company.

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(iv) MERGERS

- Mergers are a rarity in the computer services industry but have occurred among software houses.

- The same comments as for joint ventures apply with the additional caution that a merger is much more final and total than most joint ventures.

- In mergers human problems really come to the fore as neither party has any special rights to leadership. Unless the problems have been foreseen and contingency plans to forestall them drawn up, energy will be wasted on in-fighting and internal politics.

- Of the few mergers that do take place many are acquisitions in disguise where a weak and a strong company merge, possibly even reverse takeovers. The few real mergers which take place where they are opportunity-oriented rather than problem-oriented tend to be opportunistic rather than strategic. Thus they rarely feature in planning processes.

- The use of a referee or independent consultant can be extremely helpful in the early stages of a real merger provided mutual respect for and trust in the referee do exist. Sometimes an independent chairman with joint managing directors is the best structure at the top.

(v) THE ACQUISITION ROUTE

- Most favoured among the expansion routes into Europe and therefore a good option for US or UK entrants, the acquisition approach has many obvious advantages:

  - No lengthy start-up, instant revenue volume, instant market presence.

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- Vehicle for distribution of existing parent-developed products and procedures (know how), and for instant market expansion through international reference selling of combined company strengths.

- A working team of nationals (language ability); an established business site; registered, operating company entity.

- Established client base (important not only for the services they currently buy but for the revenue base expansion they can provide).

- Less obvious are the disadvantages:

  - Lengthy decision time for the acquisition's completion (can be several years) - but developing from scratch can take ten years.

  - Dropping "unrelated" services from the new acquisition can give the parent a bad name (externally and internally).

  - Internal politics are inherited with the acquisition and are often deep-rooted.

  - Degraded image following the acquisition (e.g., main center of decision displaced from local town to a foreign country).

  - Foreign control adds a layer of management (however, career paths are lengthened for the acquired staff).

  - New business methods are not understood, applied poorly or simply rejected.

- But despite the problems, the acquisition approach makes the most sense from business, timing and growth standpoints. In addition, it is often possible to achieve an industry-based synergy with results in expansion of the parent's own business scope, through the infusion of related or expanded services that are germane to, connected with, or complementary to the industry(ies) already serviced by the parent. Examples are civil engineering, offshore oil exploration, scientific processing, network implementation, financial planning, systems data base services, and stock market quotation. All are transportable.

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B. DEFINING AN ACQUISITION STRATEGY

- Before considering methods of defining acquisition strategies it is sensible to evaluate why organisations acquire others and for what purposes.

- The primary objective of most commercial organisations, whether stated or not, is to maximise (optimise) its net present value to its owners by operating in the industry(ies) selected, with the equity capital supplied and the management chosen by the owners.

- Within the above the decision-making body will take into account:

  - the balance of returns required in the short term and the long term,
  - the level of risks to be taken,
  - the general environment,
  - the opportunities available in the industry,
  - the cash resources available,
  - the human resources available,
  - any other resources available,

  to define operating objectives and strategies.

- The primary operating objectives most commercial organisations tend to work towards concern growth.

- These can consist of growth in:

  - Market Capitalisation/Share Price.
  - Profits/Cash.
  - Profitibality/Margins/Yields.
  - Revenue/Market Shares/Geographical Spread.

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- In practice many other operating objectives are stated by commercial organis ations either in parallel with or even instead of the above. On closer examination most of these are either subordinate objectives (means to growth and therefore strategies), objectives stated for public relations purposes (external or internal), personal objectives of the chief executive, or targets (for motivational purposes).

- With the possible exception of strategy implementation, the definition of strategy can be regarded as the most important function of top management.

- A strategy will be arrived at after considering the same factors as for the definition of objectives set out above and will consist of decisions concerning:

  - which market sectors to aim for,
  - which products or services to offer,
  - how to acquire, develop, motivate and control resources to achieve the objectives by the chosen means.

- In Input's recently compiled case studies on the subject of acquisition, it is interesting to note that profits were part of the objectives in exactly 50% of the buying companies and 50% of the selling companies.

- The other objectives tended to focus on quality and growth.

- Growth and specialisation tended to be very prominent in the strategies with acquisitions being mentioned as a key part of 50% of the buying companies' strategies.

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(i) ACQUISITION STRATEGY DEFINITION

- Acquisitions will correctly form part of an organisation's strategy as a method of acquiring resources to address a chosen market sector with a chosen product or service in a way which will help achieve corporate growth objectives more effectively than by relying solely on organic growth.

- This will apply to positive or defensive strategies for growth and will be achieved in one or more of three ways:

  - FASTER — The acquisition is almost invariably a very much quicker way into new markets, new sectors, new products, new services.

  - CHEAPER — It is frequently a much more profitable or less costly way into new areas (geographic, market sector, customer type) than the organic method.

  - SAFER — The risk is frequently lower than an organic entry into a new area as very much more information is available and a track record exists.

- In most industries there will be some sectors of the market which will be suited to organic growth and others more suited to acquisition. This will vary from industry to industry, sector to sector and company to company. The problem becomes one of identifying for any particular company which areas of growth are best tackled by organic growth and which by acquisitions.

- An organisation seeking growth into new geographical areas, new product areas, new service areas or simply at higher rates than previously but in the same areas will need to consider acquisitions.

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- Apart from normal management decisions on which products and services to offer and where to offer them the following must be evaluated for any particular area of expansion:

  - What are the various organic ways of achieving this particular objective and what outcome will each have?

  - What organisation (or parts thereof) are available and desirable to replace or supplement the best organic strategy for this area?

  - What does my organisation have to offer the other?

  - What synergy can be achieved by putting the two organisations together?

  - What strengths and weaknesses do each of the organisations have and how do these match each other and what is required to achieve results?

- The formal asking and answering of a structured logical set of questions such as those summarised above is likely to lead to a more rational evaluation of areas for acquisition expansion and of candidate companies in those areas.

- Many acquisitions are made opportunistically without structured planning. Some of these will succeed, but making a succession of opportunistic acquisitions can lead to organisational and human problems besides the commercial problems. Nevertheless any opportunistic acquisition prospect should always be considered both against the predetermined acquisition strategy and on its own merits. If necessary the acquisition and organic strategies can be altered to accomodate the unexpected prospect.

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(ii) ACQUISITION STRATEGIES IN COMPUTER SERVICES

- In the computer services industry most of the major successful companies have achieved much of their growth from acquisitions, mergers and joint ventures.

- This pattern is likely to continue into the foreseeable future. The reasons for this are primarily that the industry is:

  - highly fragmented,
  - multi-product/service sectored,
  - with significant but not overwhelming economies of scale,
  - service oriented,
  - highly dependent on very specific expertise.

- With such characteristics acquisitions have been and will continue to play a major part in the strategies of leading companies.

- Having defined which products and services are to be offered in which locations, and with what resources, and having decided which of these will be achieved organically and which by acquisition, a more detailed strategy is required.

- Decisions will need to be taken on what types of company to look for and a profile built up to assist searching. Items to be covered will include:

  - likely cost,
  - geographical location,
  - total sales and market sector shares,
  - relative size to purchaser,
  - profitability,
  - type of synergy expected,
  - hardware,
  - staff,

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- management,
- products and services,
- languages, terminals, networks,
- marketing orientation,
- customer profile,
- ownership.

- In the case studies previously mentioned, the major reason behind the acquisitions was based on the speed and effectiveness with which a company can achieve a position in a new geographic or product area which would have taken it many years or even decades to achieve organically.

- Strategies for making acquisitions ranged from the structured planning and analysis approach of BOC, CAP/SOGETI and CISI, through the dual opportunistic/analytical approach of UCSL and Lowndes Ajax to the mainly opportunistic approach of Boeing and ADP relying on consultants searching for what might be available and then analysing.

- Typical acquisition strategies included the following:

  - "Identify product and geographical gaps which you wish to be filled and look for fillers".

  - "Prefer organic growth in our own areas and products, acquisition growth elsewhere avoiding overlaps".

  - "Decide area - decide profile - investigate market - qualify by profits, growth and expertise - select - negotiate".

  - "Overseas acquisitions are made by careful analysis of one country at a time".

  - "Strategy has ultimately to rely on opportunities as trigger points to further analysis".

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- "Avoid bids contested by the subject as people are the key to on-going success and one can end up with problems without the people to solve them".

- "Define a profile and select a consultant to find it and get it".

- Strategies for acquisitions were invariably seen as part of the chief executive's function and in a large proportion of companies were subsequently implemented by the chief executive personally.

- This highlights the importance given by top management to the role of acquisitions in computer services and to the importance of handling them correctly.

- Points which buyers in the case studies felt were important in making acquisition strategies included:

  - "Don't start on something you and your parent can't finish". e.g. "Don't buy parts to a whole strategy without the guts to complete it".

  - "Small organisations are very fragile and need to be understood. They do not readily conform to large company procedures".

  - "Make sure the acquisition strategy fits the overall strategy".

  - "It is always more difficult to turnround a loss-making company and more painful than one expects".

  - "Acquisitions are successful when you know beforehand what you want to do, why and how. They should be the result of a considered strategy and not opportunistic".

  - "Acquisition prospects should fit the philosophy of the mother company".

  - "Keep acquisitions clean in organisational terms and avoid common products in common locations (i.e. direct competitors)".

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C. IMPLEMENTING AN ACQUISITION STRATEGY

(i) SELF ANALYSIS

- The essential preliminary to any serious strategy definition or implementation is self-analysis. For both these purposes an objective evaluation of strengths and weaknesses of the whole organisation is required including its:

  - staff,
  - management,
  - philosophies,
  - products (range and quality),
  - reputation,
  - production,
  - customers,
  - ownership,
  - finances,
  - balance sheet,
  - track record,
  - risk levels,
  - vulnerability to key staff and managers,
  - size,
  - problems,
  - forecasting accuracy,
  - information and control systems.

- To obtain the required level of objectivity it may be helpful to have a brainstorming team to include an old hand, a recently joined senior manager, a consultant/semi-outsider, as well as some of the more critical/analytical senior managers.

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- A preliminary to an acquisition strategy definition should include analysis of all of the above with special emphasis on:

  - funds,
  - timing,
  - management,
  - constraints,
  - weaknesses.

(ii) ENVIRONMENT ANALYSIS

- It is all to easy to either miss out this stage or give it only cursory attention. A large number of investors in the computer services industry in 1969/1970/1971 lost money on the environmental changes during 1971/72 and sold out at losses between '73 and '76. These investors were mainly those from different industries, banks, financial institutions, industrial companies who had rightly seen the growth potential of computer services but had not analysed the environment and market place in sufficient depth to get the timing right.

- On the other hand some of the services companies took advantage of this situation to buy back these businesses at lower prices from the investors at depressed '73/'74 price levels.

- A comprehensive environment analysis should include the:

  - economy,
  - industry,
  - sector,
  - competitors (services and in-house),
  - resources,

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- cost factors,
- pricing influences,
- technological changes,

and possibly most importantly,

- the customer.

- Objectivity is also important in this stage and formality of analysis can assist objectivity.

(iii) PROSPECT PROFILE DEFINITION

- Having analysed the environment and the company concerned and having developed a strategy of what type of acquisition is required, the next step is profile definition.

- The profile will be largely determined on whether the plan is to fill gaps and weaknesses or to complement strengths. Objective research has indicated that acquisitions show a higher success rate when based on strengths.

- The profile should be sufficiently detailed to allow an analyst to home in on say 5-10 prospects from a general list of say 50-500 companies.

Example of an extract from a prospect profile definition

What type of organisation(s) will fit?

A.	Profit Now/Future	-	Now immaterial, future £200K-£500K p.a.
B.	Revenue Size/Type	-	£1m-£2m if revenue only acquisition
		-	£1½m-£4m if retaining some/all hardware etc.

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		-	Not people-based
		-	Sustainable with growth (repeatable, not project based)
C.	Location(s)	-	Hardware control 50 miles of main data-centre if integrating. H.O. 50 miles of our H.O. Branches anywhere.
D.	Hardware	-	Same as ours, if integrating
		-	Any if not integrating
		-	Flexibility (owned or rented)
E.	Staff	-	Not 'entrepreneurial'
		-	Capable in middle
F.	Management	-	Not 'entrepreneurial'
		-	Good if not integrating, flexible if integrating
G.	Products	-	Seasoned product strategy (good products)
H.	Non-data services	-	Prefer nothing. (If something - then problem free)
I.	Terminals/Networks/ Languages	-	Large network preferred, other items open
J.	Market profile	-	High gives publicity to merger, otherwise open unless we change name.
K.	Orientation	-	Profit and market oriented, not 'depart-mental'

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L.	Customer size/type	-	Average size £5K p.a. - £20K p.a. spend.
		-	Look at any over £50K p.a.
		-	Small OK if good reason
M.	Post-acquisition strategy	-	Prefer full integration
		-	Not too heavy impact on technical people

Is it buyable?

A.	Ownership	-	Not individuals
		-	Prefer large owner
B.	History	-	Financial - open
		-	Staff/customers - OK or good
C.	Projections solo	-	Poor or dubious good ones
D.	Case to Parent	-	No redundancies
		-	Significant synergy
		-	Simple strategy
		-	Believable forecasts.

(iv) SEARCHING

- Searching will frequently take place in three distinct ways.

  - The chief executive and his key managers will draw on their own knowledge to provide a few prospects.

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- An outside consultant or professional searcher will be given a briefing to search for prospects against a profile. Frequently this type of searcher will take it a stage further to initial sounding out of likely prospects.

- The corporate planner will run a formal search by applying prospect profile criteria to a list of companies fitting the very broad definition required e.g., a software services company in Italy.

- There are a number of techniques and methods available for doing such a search and the simplest are frequently just as satisfactory as the more complex.

- Many acquisitions are made which do not result from a formal search. These are the opportunistic ones which can only be planned for in a passive receptive mode, but they are extremely important. The industry grapevine is another essential search channel.

- The search process is frequently under-budgeted and under-rated in many companies perfectly keen on acquisitions but not realising the crucial importance of this phase.

- Search and selection methods used by companies in the case studies were as follows:

Search channels:	Mentioned by:
Consultant	5
Market research companies	3
Personal contacts	2
Grapevine	1
Trade meetings	1
Trade associations	1
Local subsidiaries	1
Reference books	1
Press cuttings	1

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Selection criteria:	Mentioned by:
Management capability	3
Reputation	3
Financially sound	3
Expertise	2
Profitable	2
Staff capability	1
Staff and management's permanence	1
Non-competitive with us	1
Growth record	1
Growth potential	1
Business opportunity	1
Fit to corporate plan	1
Products	1
'Chemistry' right	1

(v) SCREENING

- Having generated 5 or 10 prospects fitting a profile a second screening will be necessary to consider whether an approach should be made and if so whether negotiations should commence. Thus there are three stages to screening:

  - the profile definition (see (iii) above),
  - screening prior to approach,
  - the continuous screen after approach to decide when to cease negotiations or how to modify them.

- The screen prior to approach will often require more information gathering to determine how well the prospect really fits the profile and some analysis of its ownership.

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- Typically it would include assessments of:

  - revenue size,
  - revenue growth,
  - revenue type,
  - customer type,
  - geographic location,
  - profitability,
  - cash flows,
  - management quality and style,
  - staff quality,
  - reputation,
  - products and services,
  - assets and hardware,
  - corporate philosophy,
  - potential for synergy,
  - future outlook in all respects based on analysis of company past, the above items and the market place.

- Screening methods used by case study respondents included:

Buyers screening prospective subjects	Mentioned by:
Degree of fit	3
Analysis of figures	2
Understand their business economics	2
Personal knowledge of people	1
Technical evaluation	1
Discussions with management	1
Financial audit	1
Feel for purchase price	1
Each case different	1

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Sellers screening prospective buyers

Degree of fit	3
Size of bid	3
Reputation	2
Level of interference	2
Professional advice from consultant	1
Quality of executives	1
Prior knowledge	1
Subject's preferences	1

(vi) APPROACHING

- Approaches range from:
  - dropping a hint on the grapevine, through
  - an 'accidental meeting with the chief executive', and the
  - 'we must get together for lunch', to
  - the consultant approaching anonymously and,
  - the consultant approaching openly, and
  - the formal presentation to the Board,

- There are no ground rules as to which approach is right. It is clear that each situation is a unique buyer/seller/subject combination and the best approach will relate to that combination.

- What can be said is that 'selling' is very certainly required by the hopeful buyer of a good prospect. Qualities most appreciated are:

  honesty,
  frankness,
  understanding,
  compatibility, and
  mutual confidentiality.

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- A good agent/consultant can set the scene for good buyer/seller relationships; a bad agent can severely reduce the prospect of a close. The problem this poses where buyers only buy on infrequent occasions is knowing who is a good agent and who is not. Experience, lack of greed, ability to grasp the essentials and generate trust are the main essentials of a good agent.

- A seller will have to make a fundamental decision of whether to sit and wait for offers or go out and find buyers. Many sellers feel it is better to sit and wait. There are several instances though where going out and seeking a buyer has worked successfully. The taking of the initiative is not always a weak bargaining position if handled well.

- Approaches actually used in the case studies were:

BOC/CITIBANK	-	BOC phoned expressing interest, no progress. One year later the consultant to Citibank called back.
BOC/Software Sciences	-	BOC phoned chief executive for lunch. Gentle approach.
BOEING/ICFC	-	BOEING approached ICFC.
CAP/GEMINI	-	Middleman approached CAP.
CISI/PCS	-	Buyer's consultant made initial approaches to PCS.
UCSL/DDP	-	Parent asked for help, UCSL made presentation.
UCSL/SINGER	-	UCSL phoned knowing they were for sale.
USCL/ROWNTREE MACKINTOSH	-	Direct phone call by UCSL to determine saleability referred by old shareholder in subject.

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ON-LINE/ATKINS	-	Subject spoke to buyer who called parent.
ADP/GREYHOUND	-	Straight phone call by ADP to Greyhound, personal contact.
GSI/SERESCO	-	GSI sounded out management then arranged introduction to parent without mentioning purpose of meeting.

(vii) EVALUATING

- Whilst a preliminary evaluation will have taken place before the approach a proper evaluation can only be done after the approach and with some co-operation from the seller or the subject.

- The information required to evaluate a prospect, some of which the buyer may already know or be able to obtain elsewhere will include:

  - local economic environment,
  - local government and legislative environment,
  - local market environment,
  - customers existing and potential,
  - competitors existing and potential,
  - products and services,
  - resources,
  - management,
  - assets,
  - systems and procedures,
  - politics, style, philosophy,
  - skeletons in the cupboard,
  - weaknesses,
  - reliability of plans and forecasts,
  - cash generating ability,
  - personnel policies,
  - staff attitudes and motivations,
  - contracts - customer and supplier.

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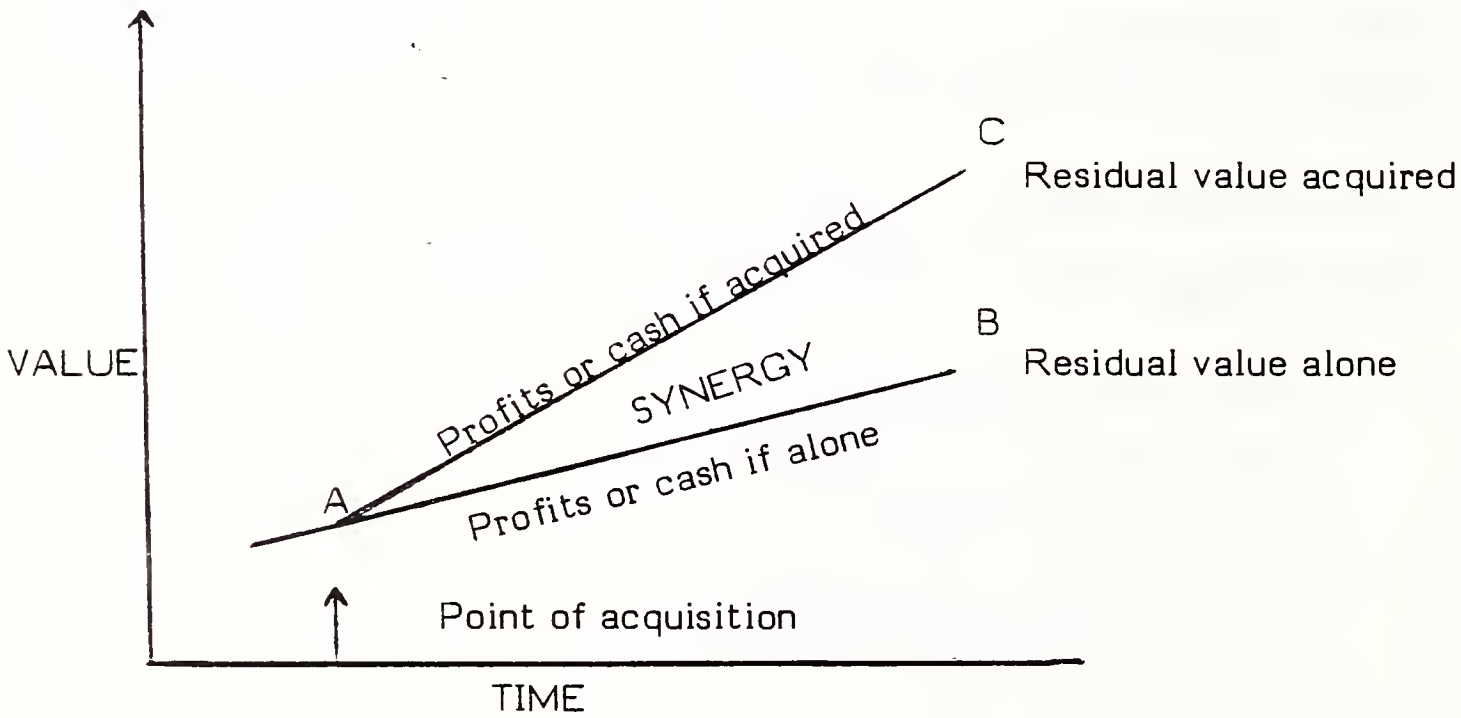
- Having obtained a view on the above, forward plans can be prepared:

  - as they would continue alone,
  - as they would continue if purchased by a competitor or investor,
  - as they would continue if purchased by you (with reasons for synergy clearly stated and quantified).

- The usual techniques can then be applied to two evaluations. The first evaluating what they are worth to the seller. The second what a competitive bidder might pay and the third what they are worth to you.

- In a pure world the area of synergy would be the area of negotiation as illustrated below.



- The discounted present value of the line AB plus the discounted residual value X would be the value of the business independently.

- The discounted present value of AC plus the discounted residual value Y would be the value of the business to the buyer.

- The present value of the forecast synergy is the difference in value between the correct minimum price at which the seller would sell and maximum price at which the buyer would buy i.e., the theoretical area of price negotiation.

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- The techniques used include:

  (a) Pay back period (the time taken for the buyer to draw out in surplus net cash flow an amount equal to the purchase price).

  (b) Discounted cash flow (the present value, after applying an interest rate appropriate to cover pure interest, inflation and risk, of the net cash flows). This is theoretically the best valuation basis.

  (c) Price Earnings Ratio (the multiplication of the last, the current and the projected net profits by factors gauged from experience, projected growth rates, other acquisitions and quoted companies to provide a capital value of the business based on its profit earning potential).

  (d) Asset and Goodwill valuation (This basis will frequently give a very low valuation for computer services companies but if the goodwill is properly valued and the human assets valued then it can give a very useful perspective to compare with (a), (b) and (c) above).

- There are many important factors to bear in mind in making such calculations which should not be made mechanistically. These will include:

  - rent reviews,
  - subsidised facilities from parent company,
  - leases (expiring or commitments and inflexibility),
  - contracts with customers and suppliers,
  - reinvestment (frequently underestimated),
  - taxation,
  - imminent customer changes,
  - imminent staff changes,
  - imminent parent company relationship changes.

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- Other factors to be taken into account will include the non-financial aspects of the contract such as guarantees and warranties required or possible to obtain.

- A much neglected but crucially important aspect of valuation is the comparison of the prospective acquisition with alternative courses of action as regards human and financial resources to be committed.

- In the case study interviews general comments made concerning actual synergy achieved included:

  - "More effective utilisation of scarce good management".
  - "Extra business from wider product range".
  - "A parent, who understands the technology, can help considerably to improve performance of a subsidiary".
  - "Synergy in the software industry takes time as there are no economies of scale".
  - "For each query the chance of satisfying it are increased with a larger company".
  - "Funds for investment, management control and reporting, spread of skills, risks reduced, scheduling efficiencies, specialist expertise are all achieveable".
  - "Experience and expertise of people interacting".
  - "Cross-fertilisation of technology and management".
  - "Better credibility".
  - "Market sector leverage and extra products".
  - "International sale of previously national products".

- Balanced against these positive comments one must be aware that in many acquisitions and mergers planned synergy is never realised and often disynergy occurs.

- Synergy planning and forecasting is an important subset of evaluation.

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(viii) NEGOTIATING

- In practice, negotiation begins at the very first approach and may well carry on until long after completion. This section will cover the period from evaluation to completion.

- The first and most important behavioural aspect of negotiating is to obtain the trust of the other party by being open, frank and direct. Without this trust the negotiations can fail or take considerably longer to conduct.

- It is very well worth taking the trouble to research into the decision-makers' and decision-influencers' points of view. By responding to their needs it can certainly happen that an acquisition can be finalised at a 'total price' well below a differently structured 'total price' offered by someone else and rejected.

- The type of opportunities/problems where this approach can make the difference include:

  - the future roles and remuneration of key executives,
  - the fiscal aspects of the offer,
  - the apparent price of the offer (i.e., an offer which is very high but has very stringent clauses in the contract which effectively reduce the price),
  - an on-going contract for service safeguarding previous parent,
  - a forward plan showing the help you are going to be giving them and its beneficial effects,
  - a very quick conclusion,
  - simplicity.

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- Flexibility combined with the above understanding is an important ability to have in negotiations. For negotiators who need to get full detailed approval of their proposals prior to negotiation this can be difficult and can severely limit the chances of closing a deal.

- One important point in both buying and selling is that it is frequently counter-productive to negotiate too hard on all points. The seeking out of the last pound, dollar, deutschmark, franc or contract detail can cause considerable reaction from the other party. There are occasions in which if you have achieved the major objectives it pays to let the other side win some minor points.

- A lesson learned by every negotiator at some time or another is that you should never underestimate your competitors nor should you assume that the person you are negotiating with will be honest in telling you how negotiations with a competitor are progressing. It is all to easy for three or four prospective buyers each to think they are ahead in the negotiations at one time.

- When several suitors are courting an interesting company at the same time the importance of trust, good communication and flexibility becomes even more apparent. That is the time to really take the trouble to ensure mutual understanding exists and to respond to their particular needs.

- This aspect of acquisition is really the human element or behavioural element. It comes into play in both the negotiating side and the integration side of acquisitions. It applies in the same way that it does at boxing, chess, football, tennis or war games in that one will do better if one understands one's opponent and responds accordingly. However, the understanding, the design of a response and the implementation of that response are all important elements.

- The illogicality and incompatibility of the human elements in an acquisition process are frequently where problems lie. The recognition of both these aspects and the development of responses to them can be very helpful in increasing chances of success.

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- The terms of the contract are of course the essence of negotiation once sufficient agreement has been reached on points of principal by the parties. There are several schools of thought in this area. One school argues that if you have the main points right accept any reasonable proposals on contract detail. The opposing school treats the negotiation like a good tennis player who plays each point on its own merits independently of the others. This school advocates that each aspect down to the smallest detail should be separately negotiated as best as possible. The question to be answered here is whether the advantage of better contract terms outweighs the risks of behavioural backlash from over-negotiation. Once again different approaches for different situations will be appropriate.

- The legal/contractual detail is the most frequently underestimated aspect of negotiations taking from 2-10 months from outline agreement in principle to completion. International acquisitions take on average approximately twice as long as domestic ones in this respect.

- The good negotiator will be one who:

  - understands people,
  - relates well to people,
  - has the power to be flexible,
  - has a very rapid thought process,
  - is motivated to succeed,
  - understands fully what he is negotiating for and why.

- Negotiating tactics used in general by buyers included:

Caring/understanding parent	3
Informality	2
Openness and directness	2
Outline benefits/synergy	2
Low staff turnover record	1
National ownership	1

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Gain confidence of management first	1
Gentleness	1
Sell to real decision maker	1

Negotiation Timing Analysis in the case studies

Time in Months for Acquisition Process

Stage	1	2	3	4	5	6	7	8	9	10
Identification to approach	12	36	3	.03	.03	.1	7	60	-	.1
Approach to offer	6	1	.5	2.5	.06	1.5	1	5	2	2
1st offer to acceptance	18	2.5	.03	2.5	.01	.5	1	1	1	4
Acceptance to completion	3.5	1.5	2	9	1	2	3	3.5	3	3
Completion to integration	12	-	-	-	-	2	24	12	12	-
Actual as % of expected (approach to completion)	470	125	50	250	No Exp.	200	166	180	100	300

- It can be seen that the timings vary enormously with identification as a prospect to the approach varying from a day to five years and with offer to acceptance varying from an hour (in a distress sale) to 18 months.

- What is clear is that very many more negotiations exceeded their expected length than fell short, one taking almost five times as long as anticipated.

Approach and Reasons for aborted negotiations from case studies

- One multiple question asked of buyers covered the following for the period 1971 - 1978.

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a) The number of companies considered as possible candidates for acquisition or merger:

Source of prospect	Generated Internally	Other Company	Middleman or third party	Total
Acquisition by you	107	104	33	244
Acquisition of you	-	16	12	28
Merger with you	1	5	1	7
Total	108	125	46	279

This table indicates that almost the same number of acquisition prospects approached the buyer in the first instance as were approached by the buyer with only 15% being introduced by a third party. It is interesting to note that none of these companies had seriously thought about being acquired as all 28 approaches were from prospective buyers or middlemen and of the seven mergers considered only one was generated internally.

b) For completed acquisitions only, the analysis of first approaches showed:

	%
First approach by buyer	49
First approach by seller	28
Introduction by outsider	23

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c) For acquisition negotiations which failed the reasons given were as follows:

	%
Outbid by competitor	24
Reluctance to be acquired by foreigner	20
Offer too low for seller	12
Miscellaneous incompatibility	12
Not as attractive as originally thought	8
Personality conflicts	6
Unable to offer equity participation	6
Blocked by French Government	4
Parent company delays/problems	2
Too slow	2
Unknown	4

- It should be stressed that these are the reasons as perceived by the frustrated buyer, and the seller may well have given different reasons for the aborted negotiations.

- It is interesting to note that price was only given as the reason in 36% of the cases which gives an indication of the delicacy of acquisition negotiations as a host of other factors can affect the chances of success.

- Points which buyers in the case studies felt were important in making acquisitions included:

  - "Do the people (especially the management) want to work for you and are they competent".
  - "It is very easy to underestimate the turnround time required".
  - "Will the company fit the objective for making the acquisition".
  - "Acquisitions take longer to find and longer to complete than one expects".

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- "Human problems can be avoided by a gentle considerate approach".
- "Buying on accounts is dangerous. Know the management".
- "Caveat Emptor" or "Let the buyer beware".
- "People need careful analysis".
- "Beware of optimistic forecasts".
- "The human touch is vital to success in acquisition".
- "Buy companies with good dependable strong management".
- "Don't waste time where parties are unsuited".
- "Don't negotiate with someone who lacks the authority".
- "Don't take the last pound, dollar or franc".
- "Where a surprise benefit is obtainable, splitting it can be beneficial".
- "Restore confidence and stability to a new group as soon as possible. Which can only be done with investment of management time".
- "Small outfits are fragile - understand what is vital - early loss of one senior man can cause failure".
- "Avoid earn-out deals unless you are prepared to let the acquired company remain highly autonomous".
- "Acquisition is not a panacea and often may not be the least costly route".
- "For a large company to match the motivation which can be achieved from a small entrepreneurial business is almost impossible and disynergy needs to be allowed for in this respect".
- "Choose your negotiating team with great care and do not be afraid of using a specialised consultant to advise, search, approach".

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(ix) APPROVAL

- Approval is always required for an acquisition whether from shareholders, parent companies, senior executives, colleagues, bankers, staff or even simply self approval for the sole trader.

- The same process is required for each of these to a different depth and with different emphases.

- Objective analysis of the proposed course of action, its outcome and its implications compared with its costs in all senses (including: lost opportunity cost and cost of the alternatives) is required with a clear presentation.

- There are many different ways of evaluating, setting out and selling such a proposal but objectivity, honesty, comprehensiveness and clarity will normally be what is required.

- The larger proportion of acquisitions proposed for approval are agreed eventually. In practice the major problem of approval is the delay caused to what can be an urgent process. Frequently when competition are involved there is a need to move quickly and flexibly. This can be frustrated especially where a slow standardised formal approval process is required.

- The other problem caused by approval is the sequence or "chicken and egg" situation. For example, frequently a reasonable proposal cannot be prepared without an approach to obtain information but an approach is not allowed without approval.

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(x) POST ACQUISITION STRATEGY

- An essential part of the precommitment analysis in an acquisition negotiation is a clearly set out implementation and operation plan for the post-acquisition period. Too frequently it is assumed that one can be developed after the acquisition.

- This plan should spell out very clearly the revenue, cost and cash flow expectations with synergy and its timing separately explained; together with the strategies to be followed and assumptions made to achieve the result.

- Preferably in a separate and more restricted document, the human aspects of integration at all levels should be covered with alternative outcomes and responses evaluated.

- It is surprising how few companies conduct a formal post-acquisition evaluation to measure the actual results against those forecast in the acquisition proposal. The excuse given is that the subject is integrated into the normal reporting and control system with budgets and actuals being compared. However good the ordinary management control system the vital feed-back to the acquisition team will not be fully effective unless an objective formal analysis of the outcome takes place by a non-acquisition team member.

- Immediate implementation of fast response financial control systems is important following an acquisition expecially if it is a turn-round situation.

- Many acquisitions are made with the original intention of minimal integration. These consist of a proportion of 'investment type' acquisitions where no synergy is planned and no changes other than ownership. What one is backing here is the buyer's belief that the business will perform better than the seller believes. Basically it is backing a market sector or a team of people.

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- Those which are not 'investment type' acquisitions but are still not really integrated might be completed for reasons of geographical expansion or product range expansion. In these cases through changes in technology and in customer requirements integration will eventually become sensible.

- Where integration is planned for in the immediate post-acquisition phase the technology and production is usually relatively straightforward, the marketing integration is usually straightforward and it is really only the people where problems arise. Typically these will include the following situations:

  - the general manager and other top managers of the acquired business losing autonomy and status,

  - departmental or functional managers who may lose status and responsibility e.g. moving from sales manager to senior salesman,

  - general feelings that promotion will tend to be given to people well-known to top management giving a disadvantage to the staff in the new company,

  - insecurity from the change of ownership, management and style of company; also insecurity carried forward from the negotiation phase,

  - changes to working conditions, rules, regulations and procedures.

- Integration styles used in general by the buyers in the case studies were varied. Three companies always used a slow gradual integration process. Two companies always imposed immediate adoption of their financial control and planning systems. Other items mentioned included cross-presentations, social meetings, creating an environment which they understand and installing a parent company man somewhere in the new subsidiary. Two companies believed in giving as much autonomy as possible.

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- A top manager in a buyer company said:

  - "There is a great sense of fulfillment in being involved in a successful merger or acquisition although it can be a difficult period as people are very sensitive during acquisition and integration".

- Some of the respondent buyers gave the success levels for all of their previous acquisitions. The table below indicates the spread.

Success Levels		Co. A	B	C	D	E	F	G	H	TOTAL
10	Perfect	1			1	1	2	1	1	7
9		1	1		1	1		2	1	7
8		3			1	2	1	1		8
7	Good	2		3	2				1	8
6					2	3		1		6
5	O.K.	1	1	1	1		1		1	5
4		1			1	1				3
3	Not too good	2			2	1				5
2					1	1				2
1	Disaster			2						2
										53

- This chart indicates that in all companies there is a spread of the post-acquisition success ratings. However it does indicate that only 9 or 12 at most out of 53 were actually regretted by the buyer (3 or 4 and below) whereas some 30 or 36 were better than O.K. This rough indication of three successes to one failure in acquisitions is higher than expected and higher than shown in a large cross industry acquisition study in the U.S.A. conducted several years ago. It is extremely encouraging.

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